UNIVERSITY OF MARYLAND

OFFICIAL PUBLICATION

Vol. 37 JUNE, 1940 No. 7

Catalogue Number

1940-1941



COLLEGE PARK, MARYLAND

CALENDAR FOR 1940-1941

1940

JULY

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UNIVERSITY CALENDAR

1940-1941

COLLEGE PARK

First Semester

1940		
Sept. 18-21	Wednesday-Saturday	Registration.
Sept. 23	Monday, 8:20 a. m.	Instruction for first semester begins.
Sept. 28	Saturday	Last day to change registration or to file schedule card without penalty.
Oct. 12	Saturday	Homecoming Day.
Nov. 14	Thursday	Annual Faculty Reception.
Nov. 20	Wednesday, 5:10 p. m.	Thanksgiving recess begins.
Nov. 25	Monday, 8:20 a. m.	Thanksgiving recess ends
Dec. 14	Saturday, 1:10 p. m.	Christmas recess begins.
1941		
Jan. 2	Thursday, 8:20 a. m.	Christmas recess ends.
Jan. 20	Monday	Charter Day. Alumni and Faculty Banquet.
Jan. 22-30	Wednesday-Thursday	First semester examinations.

Second Semester

Feb. 3-5	Monday-Wednesday	Registration for the second semester.
Feb. 6	Thursday, 8:20 a. m.	Instruction for second semester begins.
Feb. 12	Wednesday	Last day to change registration or to file schedule card without penalty.
Feb. 22	Saturday	Washington's Birthday. Holiday.
March 25	Tuesday	Maryland Day.
April 10-16	Thursday, 5:10 p. m. Wednesday, 8:20 a. m.	Easter Recess.
May 26-June 4	Monday-Wednesday	Second semester examinations.
May 30	Friday	Memorial Day. Holiday.
June 1	Sunday, 11:00 a. m.	Baccalaureate sermon.
June 6	Friday	Class Day.
June 7	Saturday	Commencement.

Summer Session

June 23	Monday	Summer Session begins.
Aug. 1	Friday	Summer Session ends.
Aug. 2	Saturday	Summer Convocation for conferring of degrees.

Notice: No leaves of absence will be granted for a period of twenty-four hours immediately preceding or following the time set for a holiday.

1940	
Sept. 3-5	Volunteer Firemen's Short Course.
Sept. 3-5	Sanitary Engineering Short Course.
Sept. 11-14	Poultry Products Marketing School.
December	Canning Crops Conference.
1941	
January	Greenkeepers' School.
Jan. 13-17	Highway Engineering Short Course.
Jan. 27-Feb. 1	Milk Testers' Short Course.
February	Nurserymen's Short Course.
March	Florists' Short Course.
April	Garden School.
Spring	Traffic Officers' Training School.
June 16-21	Rural Women's Short Course.
July	Conference of Educational Advisers of C. C. C.
August	Poultry Breeding and Improvement School.
Aug. 11-16	Boys' and Girls' Club Week.
August	Conference of Fertilizer Salesmen.
August	Conference of Tree Wardens.

BALTIMORE (PROFESSIONAL SCHOOLS)

First Semester

1940		
September 16	Monday	*Registration for evening students (LAW).
September 18	Wednesday	Instruction begins with the first scheduled period (LAW—Evening).
September 24	Tuesday	*Registration for first- and second-year students (DENTISTRY, MEDICINE, PHARMACY).
September 25	Wednesday	*Registration for all other students (DENTISTRY, LAW—Day, MEDICINE, PHARMACY).
September 26	Thursday	Instruction begins with the first scheduled period (DENTISTRY, LAW—Day, MEDICINE, PHARMACY).
November 20	Wednesday	Thanksgiving recess begins after the last scheduled period (ALL SCHOOLS).

November 25	Monday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
December 21	Saturday	Christmas recess begins after the last scheduled period (ALL SCHOOLS).
1941		
January 6	Monday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
January 27 to February 1, inc.	Monday-Saturday	*Registration for the second semester (ALL SCHOOLS).
February 1	Saturday	First semester ends after the last scheduled period (ALL SCHOOLS).
	Second Semester	
February 3	Monday	Instruction begins with the first scheduled period (ALL SCHOOLS).
February 22	Saturday	Washington's Birthday. Holiday.
April 9	Wednesday	Easter recess begins after the last scheduled period (ALL SCHOOLS).
April 16	Wednesday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
June 7	Saturday	Commencement.
June 18	Wednesday	Second semester ends (LAW — Evening).

*A student who neglects or fails to register prior to or within the day or days specified for his or her school will be called upon to pay a late registration fee of five dollars ($5.00). The last day of registration with fee added to regular charges is Saturday at noon of the week in which instruction begins following the specified registration period. (This rule may be waived only upon the written recommendation of the dean.)

*The offices of the registrar and comptroller are open daily, not including Saturday, from 9.00 a. m. to 5.00 p. m., and on Saturday from 9.00 a. m. to 12.30 p. m., with the following exceptions: Monday, September 16, 1940, until 8:00 p. m. Advanced registration is encouraged.

BOARD OF REGENTS

	Term Expires
W. W. SKINNER, Chairman	1945
Kensington, Montgomery County	
HENRY HOLZAPFEL, JR., Vice-Chairman	1943
Hagerstown, Washington County	
MRS. JOHN L. WHITEHURST, Secretary	1947
4101 Greenway, Baltimore	
J. MILTON PATTERSON, Treasurer	1944
1015 Argonne Drive, Baltimore	
WILLIAM P. COLE, JR.	1940
Towson, Baltimore County	
HARRY H. NUTTLE	1941
Denton, Caroline County	
W. CALVIN CHESNUT	1942
Roland Park, Baltimore	
JOHN E. SEMMES	1942
100 W. University Parkway, Baltimore	
ROWLAND K. ADAMS	1948
1808 Fairbank Road, Baltimore	

OFFICERS OF ADMINISTRATION

H. C. BYRD, LL.D., D.Sc., President of the University.

T. B. SYMONS, M.S., D.Agr., Director of the Extension Service, Dean of the College of Agriculture, Acting Director of the Experiment Station.

H. J. PATTERSON, D. Sc., Dean Emeritus of Agriculture.

T. H. TALIAFERRO, C. E., Ph.D., Dean of the Faculty.

H. BOYD WYLIE, M.D., Acting Dean of the School of Medicine.

J. M. H. ROWLAND, Sc.D., LL.D., M.D., Dean Emeritus of the School of Medicine.

ANNIE CRIGHTON, R.N., Superintendent of Nurses, Director of the School of Nursing.

J. BEN ROBINSON, D.D.S., F.A.C.D., Dean of the School of Dentistry.

ANDREW G. DUMEZ, Ph.G., Ph.D., Dean of the School of Pharmacy.

E. FRANK KELLY, Phar.D., D.Sc., Advisory Dean of the School of Pharmacy.

ROGER HOWELL, LL.B., Ph.D., Dean of the School of Law.

HENRY D. HARLAN, A.M., LL.B., LL.D., Dean Emeritus of the School of Law.

C. O. APPLEMAN, Ph.D., Dean of the Graduate School.

L. B. BROUGHTON, Ph.D., Dean of the College of Arts and Sciences.

HAROLD BENJAMIN, Ph.D., Dean of the College of Education, Director of the Summer Session.

W. S. SMALL, Ph.D., Advisory Dean of the College of Education, Advisory Director of the Summer Session.

S. S. STEINBERG, B.E., C.E., Dean of the College of Engineering.

W. MACKENZIE STEVENS, M.B.A., Ph.D., C.P.A., Dean of the College of Commerce.

M. MARIE MOUNT, A.B., M.A., Dean of the College of Home Economics.

H. F. COTTERMAN, Ph.D., Assistant Dean of the College of Agriculture.

GEARY F. EPPLEY, M.S., Dean of Men, Director of Athletics.

ADELE H. STAMP, M.A., Dean of Women.

THOMAS D. FINLEY, Lt. Col., Inf., U. S. Army, Professor of Military Science and Tactics.

H. T. CASBARIAN, B.C.S., C.P.A., Comptroller.

W. M. HILLEGEIST, Director of Admissions.

ALMA H. PREINKERT, M.A., Registrar.

F. K. HASZARD, B.S., Secretary to the President.

CARL W. E. HINTZ, A.M.L.S., Librarian.

H. L. CRISP, M.M.E., Superintendent of Buildings and Grounds.

T. A. HUTTON, Purchasing Agent.

OFFICERS OF INSTRUCTION

For the Year 1940-1941

At College Park

PROFESSORS

CHARLES ORVILLE APPLEMAN, Ph.D., Professor of Botany and Plant Physiology, Dean of the Graduate School.

HAYES BAKER-CROTHERS, Ph.D., Professor of History.

RONALD BAMFORD, Ph.D., Professor of Botany.

HAROLD BENJAMIN, Ph.D., Dean of the College of Education, Director of Summer School.

FRED WILSON BESLEY, Ph.D., Professor of Farm Forestry, State Forester.

LUTHER ALLEN BLACK, Ph.D., Professor of Bacteriology.

LEVIN BOWLAND BROUGHTON, Ph.D., Dean of the College of Arts and Sciences, Professor of Chemistry, State Chemist.

GLEN DAVID BROWN, M.A., Professor of Industrial Education.

ARTHUR LOUIS BRUECKNER, B.S., V.M.D., Professor of Animal Pathology.

THEODORE CARROLL BYERLY, Ph.D., Professor of Poultry Husbandry.

RAY WILFORD CARPENTER, A.B., LL.B., Professor of Agricultural Engineering, State Drainage Engineer.

ERNEST NEAL CORY, Ph.D., Professor of Entomology, State Entomologist.

HAROLD F. COTTERMAN, Ph.D., Professor of Agricultural Education, Assistant Dean of the College of Agriculture, State Supervisor of Vocational Agriculture.

MYRON CREESE, B.S., E.E., Professor of Electrical Engineering.

TOBIAS DANTZIG, Ph.D., Professor of Mathematics.

SAMUEL HENRY DEVAULT, Ph.D., Professor of Agricultural Economics and Farm Management.

NATHAN LINCOLN DRAKE, Ph.D., Professor of Organic Chemistry.

ALICE GWENDOLYN DREW, M.A., Professor of Physical Education for Women.

RAY EHRENSBERGER, Ph.D., Professor of Speech.

CHARLES GARFIELD EICHLIN, A.B., M.S., Professor of Physics.

CHARLES WALTER ENGLAND, Ph.D., Professor of Dairy Manufacturing.

WILLIAM FRANKLIN FALLS, Ph.D., Professor of Modern Languages.

THOMAS DEWEES FINLEY, Lieutenant Colonel, Inf., U.S.A., Professor of Military Science and Tactics.

ALLEN GARFIELD GRUCHY, Ph.D., Professor of Finance and Economics.

CHARLES BROCKWAY HALE, Ph.D., Professor of English.

MALCOLM MORRISON HARING, Ph.D., Professor of Physical Chemistry.

LAWRENCE VAUGHAN HOWARD, Ph.D., Professor of Political Science.

WILBERT JAMES HUFF, Ph.D., D.Sc., Professor of Chemical Engineering.

KENNETH COLE IKELER, M.E., M.S., Professor of Animal and Dairy Husbandry.

LAWRENCE HENRY JAMES, Ph.D., Professor of Bacteriology.

JOHN GAMEWELL JENKINS, Ph.D., Professor of Psychology.

CARL SMITH JOSLYN, Ph.D., Professor of Sociology.
MORLEY ALLAN JULL, Ph.D., Professor of Poultry Husbandry.
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HOWARD BARR WINANT, M.S.....Assistant Professor, Soil Technology
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CHARLES EDWARD TEMPLE, A.M.....Professor, Plant Pathology
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CHARLES SIMPSON WILLIAMS, B.S.....Instructor, Poultry Husbandry

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ELLEN PHELPS EMACK.....Seed Analyst
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Baltimore	HORACE BENNETT DERRICK, B.S., Associate Professor,	Towson
Calvert	JOHN BOOME MORSELL, B.S., Assistant Professor,	Prince Frederick
Caroline	GEORGE WATSON CLENDANIEL, B.S., Associate Professor,	Denton
Carroll	LANDON CRAWFORD BURNS, B.S., Associate Professor,	Westminster
Cecil	JAMES ZENUS MILLER, B.S., Assistant Professor	Elkton
Charles	PAUL DENNIS BROWN, B.S., Associate Professor	La Plata
Dorchester	WILLIAM RUSSELL MCKNIGHT, B.S., Associate Professor,	Cambridge
Frederick	HENRY REESE SHOEMAKER, B.S., M.A., Associate Professor,	Frederick
Garrett	JOHN HURLEY CARTER, B.S., Assistant Professor	Oakland
Harford	HENRY MORRISON CARROLL, B.S., Associate Professor,	Bel Air
Howard	WARREN GRAHAM MYERS, B.S., Assistant Professor,	Ellicott City
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Queen Annes	MARK KERMIT MILLER, B.S., Assistant Professor,	Centerville
St. Marys	JOSEPH JULIUS JOHNSON, Assistant Professor,	Leonardtown
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Wicomico	JAMES PAUL BROWN, B.S., Assistant Professor	Salisbury
Worcester	ROBERT THORNTON GRANT, B.S., Associate Professor,	Snow Hill

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Harford	WALTER SHERARD WILSON, B.S., Instructor	Bel Air
Kent	STANLEY BURR SUTTON, Instructor	Chestertown
Montgomery	RUFUS BACHER KING, A.B., Instructor	Rockville
Carroll and Frederick	CHARLES HARMON REMSBERG, B.S., Instructor	Frederick
Caroline, Dorchester and Talbot	CHARLES FULLER, Instructor	Easton
Queen Anne's	CHESTER MARVIN CISSELL, B.A., Instructor	Centreville

Local Agents—Negro Work

Southern Maryland	MARTIN GREEN BAILEY, B.S., Instructor	Seat Pleasant
Eastern Shore	LOUIS HENDERSON MARTIN, Instructor	Princess Anne

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Carroll	ADELINE MILDRED HOFFMAN, M.A., Assistant Professor,	Westminster
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Charles	MARY GRAHAM, Assistant Professor	La Plata
Dorchester	HATTIE ESTELLA BROOKS, A.B., Associate Professor,	Cambridge
Frederick	FLORENCE ELIZABETH WILLIAMS, B.S., Assistant Professor,	Frederick
Garrett	MILDRED EVA BARTON, B.S., Assistant Professor	Oakland
Harford	CATHARINE MAURICE, B.S., Associate Professor	Bel Air
Howard	KATHRYN ELIZABETH NEWTON, M.S., Assistant Professor,	Ellicott City
Kent	HELEN NICKERSON SCHELLINGER, Associate Professor,	Chestertown
Montgomery	EDYTHE MARGARET TURNER, Associate Professor	Rockville

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Queen Anne's.....HELEN MARIE HARNER, B.S., Assistant Professor, Centreville
St. Mary's.....ETHEL JOY, A.B., Assistant Professor.....Leonardtown
Somerset.....HILDA TOPFER, B.S., Assistant Professor.....Princess Anne
Talbot.....MARGARET SMITH, B.S., Associate Professor.....Easton
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Baltimore and Harford.....ELIZABETH ROZELLE JOHNSON, B.S., Instructor.....Towson

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Somerset.....(MRS.) JUSTINE NAHALA CLARK, Instructor...Princess Anne

Assistant Local Home Demonstration Agent (Colored)

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ARTHUR LOUIS BRUECKNER, B.S., V.M.D.,, Professor of Animal Pathology, in Charge of College Park Laboratory.
LEO JOSEPH POELMA, D.V.M., M.S., Associate Professor of Animal Pathology.
WILLIAM RUSH CRAWFORD, D.V.M., Associate Professor of Veterinary Science.
HAROLD MOON DEVOLT, D.V.M., M.S., Associate Professor of Animal Pathology.

CLYDE LORAYNE EVERSON, D.V.M., Assistant Professor of Veterinary Science, in Charge of Baltimore Laboratory.
CHARLES ROBERT DAVIS, D.V.M., M.S., Assistant Professor of Veterinary Science.
IRVIN M. MOULTHROP, D.V.M., Assistant Professor of Veterinary Science, in Charge of Salisbury Laboratory.
GEORGE EDWIN DANIEL, Ph.D., Assistant Professor of Veterinary Parasitology.
CHARLES HENRY CUNNINGHAM, D.V.M., M.S., Assistant Professor of Veterinary Science, in Charge of Centreville Laboratory.
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CHAS. B. WEAGLEY, D.V.M., Assistant Professor and Veterinary Inspector, Middletown.
CHAS. OMER, D.V.M., Assistant Professor and Veterinary Inspector, Westminster.

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CHARLES BAGLEY, JR., M.A., M.D.,Professor of Neurological Surgery.

HARVEY G. BECK, M.D., Sc.D., Professor of Clinical Medicine.

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CHARLES REID EDWARDS, M.D., Professor of Clinical Surgery.

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HARRY FRIEDENWALD, A.B., M.D., D.H.L., D.Sc., Professor Emeritus of Ophthalmology.

JULIUS FRIEDENWALD, A.M., M.D., Professor Emeritus of Gastro-Enterology.

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HENRY J. WALTON, M.D., Professor of Roentgenology.

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CARL DAME CLARKE, Associate Professor of Art as Applied to Medicine.
PAUL W. CLOUGH, B.S., M.D., Associate Professor of Medicine.
RICHARD G. COBLENTZ, M.A., M.D., Associate Professor of Neurological Surgery.
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JAMES G. MCALPINE, Ph.D., Associate Professor of Bacteriology.
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EMIL NOVAK, A.B., M.D., D.Sc., Associate Professor of Obstetrics.
D. J. PESSAGNO, A.B., M.D., Associate Professor of Surgery.

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MILTON S. SACKS, B.S., M.D. Medicine
GORDON M. STEPHENS, A.B., M.D. Psychiatry
BERNARD SUSSMAN, B.S. in Phar. Food and Drug Chemistry
WILLIAM K. WALLER, A.B. Medicine
MABEL G. WILKIN, M.A., M.D. Pediatrics

INDUSTRIAL EDUCATION STAFF

For the Year 1939-40

At Baltimore

MARY ALICE ADAMS, M.A., Principal, School No. 44, Baltimore.

GLEN DAVID BROWN, M.A., Professor of Industrial Education, University of Maryland.

CLYDE BALTZER EDGEWORTH, M.A., Supervisor of Commercial Education, Baltimore Public Schools.

GAYLORD BEALE ESTABROOK, Ph.D., Assistant Professor of Physics, University of Maryland.

GARDNER P. H. FOLEY, M.A., Instructor in English and Speech, University of Maryland.

GEORGE MORRISON GAITHER, Supervisor of Industrial Education, Baltimore Public Schools.

RALPH GALLINGTON, M.A., Assistant Professor of Industrial Education, University of Maryland.

PAUL BATES GILLEN, M.S., Special Assistant, Patterson Park Senior High School, Baltimore.

JOHN JOSEPH GRIMES, B.S., Director, Day Camp, Baltimore.

WILLIAM FREDERICK HAEFNER, B.S., Instructor, Woodworking, Southern High School, Baltimore.

MILLARD CRANE KENT, M.A., Principal, Boys' Vocational School No. 293, Baltimore.

EDWARD LEROY LONGLEY, B.S., Shop Instructor, Baltimore Polytechnic Institute, Baltimore.

GERALD LOUIS LUND, B.S., Instructor, Ottmar Mergenthaler School of Printing, Baltimore.

IRWIN DWINELLE MEDINGER, B.S. in Economics, LL.B., Placement Counselor, Baltimore Public Schools, Baltimore.

MELVIN LEROY MORITZ, Instructor in Machine Shop Practice and Cold Iron Work, Clifton Park Junior High School, Baltimore.

FRANCES DOUB NORTH, M.A., Instructor in Commercial Education, Western High School, Baltimore.

ALBERT GIBSON PACKARD, M.A., Supervisor of Industrial Education, Baltimore Public Schools, Baltimore.

THOMAS PYLES, Ph.D., Assistant Professor of English, University of Maryland.

ROBERT LINCOLN SMITH, B.S., Instructor, Baltimore Polytechnic Institute, Baltimore.

JOHN LANGDON STENQUIST, Ph.D., Director, Bureau of Research, Baltimore Public Schools, Baltimore.

EDWIN HOLT STEVENS, M.A., J.D., Extension Instructor, University of Maryland.

CHARLES WESLEY SYLVESTER, B.S., Director of Vocational Education, Baltimore Public Schools, Baltimore.

E. GASTON VANDEN BOSCHE, Ph.D., Assistant Professor of Inorganic and Physical Chemistry, University of Maryland.

PAUL ALEXANDER WILLHIDE, B.S., Principal, General Vocational School No. 57, Baltimore.

RILEY SETH WILLIAMSON, M.S., Head of Scientific Technical Department, Baltimore City College, Baltimore.

KARL H. YOUNG, Supervisor of Vocational-Industrial Education, Baltimore Public Schools, Baltimore.

HOWARD EDWARD ZIEFLE, B.S., Principal, General Vocational School No. 294, Baltimore.

FACULTY COMMITTEES

At Baltimore

LIBRARY

(Medicine) Doctors Lockard, Wylie, and Love, Jr.; (Dentistry) Doctors Anderson, Aisenberg, and McCrea; (Pharmacy) Dean DuMez, Messrs. Hartung, Chapman, and Slama; (Law) Messrs. Reiblich and Strahorn.

The Faculty Councils of the Baltimore Schools are included in the descriptive statements of the respective schools in Section II.

The Faculty Committees of the Baltimore Schools are given in the separate announcements issued by the several schools.

SECTION I
General Information

HISTORICAL STATEMENT

The history of the present University of Maryland, before the merger in 1920, is the history of two institutions: the old University of Maryland in Baltimore and the Maryland State College (formerly Maryland Agricultural College) at College Park.

This history began in 1807 when the College of Medicine of Maryland was organized, the fifth medical school in the United States. The first class was graduated in 1810. A permanent home was established in 1814-1815 by the erection of the building at Lombard and Greene Streets in Baltimore, the oldest structure in America devoted to medical teaching. Here was founded one of the first medical libraries (and the first medical school library) in the United States. In 1812 the General Assembly of Maryland authorized the College of Medicine of Maryland to "annex or constitute faculties of divinity, law, and arts and sciences," and by the same act declared that the "colleges or faculties thus united should be constituted an university by the name and under the title of the University of Maryland." By authority of this act, steps were taken in 1813 to establish "a faculty of law," and in 1823 a regular school of instruction in law was opened. Subsequently there were added in 1882 a Department of Dentistry which was absorbed in 1923 by the Baltimore College of Dental Surgery (founded in 1840, the first dental school in the world); in 1889 a School of Nursing; and in 1904 the Maryland College of Pharmacy (founded in 1841, the third oldest pharmacy college in the United States).

The Maryland State College was chartered in 1856 under the name of the Maryland Agricultural College, the second agricultural college in the Western Hemisphere. For three years the College was under private management. In 1862 the Congress of the United States passed the Land Grant Act. This act granted each State and Territory that should claim its benefits a proportionate amount of unclaimed western lands, in place of scrip, the proceeds from the sale of which should apply under certain conditions to the "endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This grant was accepted by the General Assembly of Maryland, and the Maryland Agricultural College was named as the beneficiary of the grant. Thus the College became, at least

in part, a State institution. In the fall of 1914 control was taken over entirely by the State. In 1916 the General Assembly granted a new charter to the College, and made it the Maryland State College.

In 1920, by an act of the State Legislature, the University of Maryland was merged with the Maryland State College, and the name of the latter was changed to the University of Maryland.

All the property formerly held by the old University of Maryland was turned over to the Board of Trustees of the Maryland State College, and the name was changed to the Board of Regents of the University of Maryland. Under this charter every power is granted necessary to carry on an institution of higher learning and research. It provides that the University shall receive and administer all existing grants from the Federal Government for education and research and all future grants which may come to the State from this source. The University is co-educational in all its branches.

ADMINISTRATIVE ORGANIZATION

The government of the University is vested by law in a Board of Regents, consisting of nine members appointed by the Governor each for a term of nine years. The administration of the University is vested in the President. There is a General Administrative Board which acts in an advisory capacity to the President.

The University administrative organization comprises the following divisions:

College of Agriculture.
Agricultural Experiment Station.
Extension Service.
College of Arts and Sciences.
College of Commerce.
College of Education.
College of Engineering.
College of Home Economics.
Graduate School.
Summer Session.
Department of Military Science and Tactics.
School of Dentistry.
School of Law.
School of Medicine.
School of Nursing.
School of Pharmacy.
University Hospital.

The University faculties are composed of the Deans and the instructional staffs of each college and school, including the librarian and two assistant librarians. The President and the Dean of the Faculty are ex-officio members of each of the faculties.

The organization and activities of the several administrative divisions are described in full in the appropriate chapters of Section II.

LOCATION

The University of Maryland, located at College Park, Prince George's County, is eight miles from Washington and thirty-two miles from Baltimore. The campus fronts on the Baltimore-Washington boulevard.

The Professional Schools of the University and the University Hospital are located in the vicinity of Lombard and Greene Streets, Baltimore.

GROUNDS AND BUILDINGS

College Park

Grounds. The University grounds at College Park comprise 575 acres. A broad rolling campus is surmounted by a commanding hill which overlooks a wide area and insures excellent drainage. Most of the buildings are located on this eminence, and the adjacent grounds are laid out attractively in lawns and terraces ornamented with shrubbery and flower beds. Below the brow of the hill, on either side of the Washington-Baltimore Boulevard, lie the drill grounds and the athletic fields.

Approximately 300 acres are used for research and teaching in horticulture, agriculture, dairying, livestock, and poultry; and an additional five hundred and eight acres for plant research work are located on a farm five miles northwest of the campus.

Buildings. The buildings comprise about 30 individual structures, which provide facilities for the several activities and services carried on at College Park.

Administration and Instruction. This group consists of the following buildings: *Administration Building*, which accommodates the Office of the President, Dean of Faculty, Dean of Men, Comptroller, Registrar, Director of Admissions, and Alumni Secretary; *Agriculture Building*, which houses the College of Agriculture, Agricultural and Home Economics Extension Service, and Auditorium; *Arts and Sciences Building; Engineering Building; Morrill Hall*, which houses a portion of the work in the Sciences; *Poultry Research Building; Horticulture Building; Dairy Building; Old Library Building*, in which are the Offices of the Dean of Women and her staff; *Music Building*, which provides for the Department of Music, the student band, and Glee Club; *Home Economics Building; Chemistry Building*, in which are located, in addition to space for instruction in chemistry, laboratories for State work in analysis of feeds, fertilizers, and lime; and *College of Education Building.*

Experiment Station. The headquarters for the Station are in the Agriculture Building. The various laboratories and green houses for this work are located in many of the other buildings on the Campus.

Physical Education. This group consists of *The Ritchie Coliseum*, which provides quarters for all teams, an athletic office, trophy room, rooms for faculty, and visiting team rooms, together with a playing floor and per-

manent seating arrangements for 4,262 persons; *Byrd Stadium,* with a permanent seating capacity of 8,000, also furnished with rest rooms for patrons, dressing rooms, and equipment for receiving and transmitting information concerning contests in progress; *Gymnasium,* used in part by the Military Department and generally for physical education work; and the *Girls' Field House,* for all girls' sports. Playing and practice fields and tennis courts are adjacent to the field houses.

Dormitories. The Men's Dormitory group, consisting of six structures, provides accommodations for 460 men students. Accommodations for 228 women students are provided in Margaret Brent and Anne Arundel Halls.

Rossborough Inn. This historic Inn, built in 1798, is the oldest building on the campus and for many years housed the Agricultural Experiment Station. It has been restored with the aid of a WPA grant, and present plans call for its use as a museum, and a faculty-alumni center.

Service Structures. This group includes the *Central Heating Plant, General Service Building; Infirmary,* with accommodations for forty patients, physician's office, operating room, and nurses' quarters; *Dining Hall;* and *Laundry.*

United States Bureau of Mines. The Eastern Experiment Station of the United States Bureau of Mines is located on the University grounds. The general laboratories are used for instruction purposes in Engineering as well as by the United States Government for experimental work. The building contains a geological museum, and a technical library.

Baltimore

The group of buildings, located in the vicinity of Lombard and Greene Streets, provides available housing for the Baltimore division of the University. The group comprises the original *Medical School Building,* erected in 1814; the *Old Hospital,* now used as a dispensary; the *New University Hospital* with approximately 450 beds; the *Frank C. Bressler Research Laboratory;* the *Dental and Pharmacy Building;* the *Nurses' Home;* the *Law School Building* and the *Administration Building.*

PRINCESS ANNE COLLEGE

Princess Anne College, located at Princess Anne, Somerset County, is maintained for the education of negroes in agriculture, the mechanic arts, and home economics.

THE UNIVERSITY LIBRARIES

Libraries are maintained at both the College Park and Baltimore branches of the University.

The Library at College Park,, completed in 1931, is an attractive, well equipped, and well lighted structure. The reading room on the second floor seats 236, and has about 5,000 reference books and bound periodicals on

open shelves. The five-tier stack room is equipped with 18 carrels for the use of advanced students. About 12,000 of the 90,000 volumes on the campus are shelved in the Chemistry and Entomology departments, the Graduate School, and other units. Over 700 periodicals are currently received.

Facilities in Baltimore consist of the Libraries of the School of Dentistry, containing some 7,500 volumes; the School of Law, 17,000 volumes; the School of Medicine, 20,000 volumes; and the School of Pharmacy, 8,000 volumes. The Medical Library is housed in Davidge Hall; the remaining three libraries have adequate quarters in the buildings of their respective schools, where they are readily available for use. Facilities for the courses in Arts and Sciences are offered jointly by the Libraries of the Schools of Dentistry and Pharmacy.

The libraries of the University total in the aggregate about 142,500 bound volumes and large collections of unbound journals. The Library is a depository for publications of the United States Government, and numbers some 13,000 documents in its collections.

The University Library is able to supplement its reference service by borrowing material from other libraries through Inter-Library Loan and Bibliofilm Service, or by arranging for personal work in the Library of Congress, the United States Department of Agriculture Library, and other agencies in Washington.

ADMISSION

All correspondence regarding admission should be addressed to the Director of Admissions. That pertaining to the colleges of Agriculture, Arts and Sciences, Commerce, Education, Engineering, Home Economics, the Graduate School, and the Summer Session should be mailed to the University of Maryland, College Park; that pertaining to the schools of Dentistry, Law, Medicine, Nursing, and Pharmacy should be mailed to the University of Maryland, Lombard and Greene Streets, Baltimore.

Information about admission to the professional schools in Baltimore will be found in their respective sections of this catalogue (see Index), and in the bulletins issued by the several schools.

Age of Applicants: A student who is less than sixteen years of age must live with his parents or guardians.

Admission Procedure: Candidates for admission should procure application blanks from the office of the Director of Admissions as early as possible. It would not be too soon for secondary school seniors to write for the blanks shortly after the beginning of their final school term.

If the application, with the school record through the first semester of the senior year, is returned before graduation to the Director of Admissions, then the applicant should request the principal to send in a supplementary report after graduation—with the grades for the final term, a statement with date of graduation, the rank of the student in the graduating class, and whether the applicant is recommended for admission. All other candidates for admission, also, should submit their applications as early as possible.

A certificate of admission and material pertaining to registration will be mailed to each applicant whose credentials are acceptable. The Director of Admissions will be pleased to advise, either in person or by correspondence, with prospective students, their parents, or other interested persons concerning the preparation of the applicants, or on any questions that relate to admission to the University.

Time of Admission: Applicants for admission should plan to enter the University at the beginning of the school year in September. It is possible, however, to be admitted to certain curricula at the beginning of either semester.

Registration: New students will register on Wednesday and Thursday, September 18 and 19, 1940. The English placement and psychological and other required tests are a part of the registration procedure.

A special freshman program will be followed between registration and the beginning of the instruction schedule, the object of which is to complete the organization of freshmen so that they may begin their regular work promptly and effectively, and familiarize themselves with their new surroundings.

ADMISSION FROM SECONDARY SCHOOLS

An applicant from a secondary school may be admitted either by certificate or by examination or by a combination of the two methods.

Admission by Certificate: An applicant must be a graduate of a secondary school which is approved by the State Board of Education of Maryland or by an accrediting agency of at least equal rank, and which requires for graduation not fewer than fifteen units. A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. A double laboratory period in any science or vocational study is considered equivalent to one class exercise. Normally, not more than three units are allowed for four years of English. If, however, a fifth course has been taken, an extra unit will be granted.

A graduate of an approved secondary school in Maryland who meets the certification requirement of the State Department of Education, or the Department of Education of Baltimore City; or a graduate of an approved secondary school in the District of Columbia who meets the certification grade of his school, will be admitted upon presentation of the proper certificate from the principal. A graduate who does not meet fully these requirements may be required to present further evidence of ability to undertake college work. At the discretion of the Director of Admissions, this may include an appropriate examination. Admission examinations will be given during the first week of each of the months of July, August, and September at College Park. Applicants concerned will be notified as to when they should report.

An applicant for admission by certificate from a secondary school not located in Maryland or in the District of Columbia must be recommended by the principal, and should have attained the certification-to-college grade of the school. If the school does not have such a quality grade, then the applicant's school grades should be at least ten points or one letter higher than the lowest passing grade of the school.

Admission by Examination: An applicant from a secondary school who is not eligible for admission by certificate may seek entrance through either of two types of examination: (1) he may appeal to the Director of Admissions for permission to report at the University for an examination, the result of which will be used in conjunction with the secondary school record to determine whether the applicant should be admitted; or (2) he may be admitted on presenting evidence of having passed satisfactorily other approved examinations in the subjects required for graduation from an accredited secondary school. Such examinations are offered by the College Entrance Examination Board, 431 West 117th Street, New York City; the Regents of the University of the State of New York, Albany; and the Department of Public Instruction of the State of Pennsylvania, Harrisburg.

UNDERGRADUATE CURRICULA

The following curricula are available. The letters placed after the names of the curricula (see Index) refer to the columnar arrangement of the entrance requirements below.

College of Agriculture

Agricultural Chemistry—C
Agricultural Education and Rural Life—B
Agriculture-Engineering—C
Agriculture, General—B
Agronomy
 Farm Crops—A
 Soils—A
Animal Husbandry—B
†Bacteriology—A
†Botany
 General Botany and Morphology—A
 Plant Pathology—A
 Plant Physiology and Ecology—A
Dairy Husbandry
 Dairy Manufacturing—B
 Dairy Production—B
†Entomology—A
Farm Management—B
Food Technology—A
Horticulture
 Floriculture and Ornamental Horticulture—B
 Pomology and Olericulture—B
Poultry Husbandry—B
Preforestry—A
Preveterinary—A
Statistics—C

College of Arts and Sciences

*Bacteriology—A
*Botany—A
‖Chemical Engineering—C
Chemistry
 General—C
 Industrial—C
‡Economics—A
§Education—A
English—A
*Entomology—A
French—A
General Biological Sciences—A
General Physical Sciences—C
German—A
History—A

College of Arts and Sciences (con'd)

Mathematics—C
Physics—C
Political Science—A
Predental—A
‡Prelaw—A
Premedical—D
Prenursing—A
Psychology—A
Sociology—A
Spanish—A
Statistics—C
Zoology—A

College of Commerce

Accounting—A
Agricultural Economics—A
Cooperative Organization and Administration—A
†Economics—A
Finance—A
General Business—A
Marketing and Sales Administration—A
†Prelaw—A

College of Education

†Arts and Sciences—A
Commercial—E
¶Home Economics—B
Industrial—A (also in Baltimore)
Physical—A

College of Engineering

†Chemical—C
Civil—C
Electrical—C
Mechanical—C
Mechanical with Aeronautical option—C

College of Home Economics

§Education—B
Extension—B
Foods and Nutrition—B
General Home Economics—B
Institution Management—B
Practical Art—B
Textiles and Clothing—B

*Also College of Agriculture. †Also College of Arts and Sciences. ‡Also College of Commerce. §Also College of Education. ‖Also College of Engineering. ¶Also College of Home Economics.

The unit requirements for admission to the foregoing curricula are indicated in the following table, the requirements for a particular curriculum being given in the column headed by the letter which follows the name of the curriculum in the above list:

	A	B	C	D	E
English	3	3	3	3	3
Algebra	1		*2	1	1
Plane Geometry	1		1	1	
Solid Geometry			*½		
Mathematics		2			
History	1	1	1	1	1
Science	1	1	1	1	1
Foreign Language				2	
Stenography					**2
Typewriting					**1
Bookkeeping					1
Electives	8	8	6½	6	5
Total	15	15	15	15	15

(Not more than four vocational units may be offered.)

Conditional Admission: An applicant who is eligible otherwise to be admitted to the University, but who cannot meet the specific entrance units required for the curriculum of his choice may register as a non-classified student. Classification as a regular student is automatic when the entrance deficiency is absolved.

ADMISSION BY TRANSFER FROM OTHER COLLEGES AND UNIVERSITIES

A candidate for admission by transfer from another college or university must present evidence that he has maintained a satisfactory and honorable record at the other institution. The applicant should file as early as possible the formal application blank (which may be obtained from the office of the Director of Admissions), together with the official transcripts of the secondary school and college records, including a statement of honorable dismissal.

Advanced standing is granted for courses completed elsewhere which are equivalent in extent and quality to those given by the University of Maryland, subject to the following provisions:

(1) Regardless of the amount of advanced standing a student may be allowed, the baccalaureate degree will not be conferred under any circumstances until a year of resident work shall have been completed.

*An applicant who cannot offer the second unit in algebra and the one-half unit in solid geometry may be admitted to the College of Engineering, and to the curricula in Chemistry, Mathematics, and Physics, but will be obliged during the first semester to make up the advanced algebra and solid geometry. The regular first semester mathematics would be taken in the second semester, and the second semester mathematics would be taken in the summer session. An applicant who does not have entrance credit for solid geometry would take this course concurrently with the regular first semester mathematics. Students in either of these groups would register with regular classification.

**Students preparing to teach in the field of Business Practice may substitute electives for stenography and typewriting.

(2) Regardless of the amount of advanced standing allowed, the baccalaureate degree will not be conferred until the student shall have satisfied the full requirements of the curriculum elected.

(3) If the character of the student's work in any subject is such as to create doubt as to the quality of that which preceded it elsewhere, the University reserves the right to revoke at any time any advanced standing credit allowed.

(4) Credit will not be granted for more than one-fourth of the total credit value of those courses which were passed with the lowest passing grade of the college attended.

(5) An applicant may request an examination for advanced standing in any subject, in keeping with the requirements prescribed by the University of Maryland.

UNCLASSIFIED STUDENTS

Applicants who are at least twenty-one years of age and who have had insufficient preparation to be admitted to any of the four-year curricula may register, with the consent of the Director of Admissions, for such courses as they may appear fitted to take. A student is ineligible to matriculate for a degree, however, so long as he retains an unclassified status.

REQUIREMENT IN MILITARY INSTRUCTION

All male students classified academically as freshmen or sophomores, who are citizens of the United States, who are physically fit to perform military duty and who are not less than 14 or more than 26 years of age, are required to take basic military training for a period of two years as a prerequisite to graduation.

Graduation Requirements for Students Excused from Military Instruction and Physical Education

Students excused from basic military training or physical education without academic credit shall be required to take an equivalent number of credits in other subjects, so that the total credits required for a degree in any college shall not be less than 126 hours. The substitution must be approved by the dean of the college concerned.

REQUIREMENTS IN PHYSICAL EDUCATION FOR WOMEN

All women students whose bodily condition indicates that they are physically fit for exercise are required to take physical education for a period of two years, as a prerequisite to graduation.

HEALTH SERVICE

PHYSICAL EXAMINATIONS

As soon as possible after the opening of the fall semester, as a measure for protecting the general health, all students who enter the undergraduate colleges at College Park are given a physical examination. The examination of the men students is conducted by the University Physician in cooperation with the Physical Education and Military Departments.

The examination of women students is conducted by a woman physician in cooperation with the office of Physical Education for Women. The woman physician has her offices in the Infirmary. She is available for consultation by all women students at hours to be arranged.

INFIRMARY RULES

1. All undergraduate students may receive dispensary service and medical advice by reporting at the Infirmary during regular office hours established by the physician in charge.

Nurses' office hours, 8 to 10 A.M.—1 to 2 P. M.—6 to 8 P. M., daily except Sunday; 10 A. M. to 12 Noon—6 to 7 P. M. Sunday.

Doctor's office hour 12 Noon to 1 P. M. daily except Sunday. Office hour on Sunday by appointment only.

2. A registered nurse is on duty at all hours in the Infirmary. Between the hours of 2 and 4 in the afternoon, quiet hour is observed. During this time students are requested not to report except in case of an emergency.

3. Students not living in their own homes who need medical attention and who are unable to report to the Infirmary should call one of the University physicians. Such visits will be free of charge except in cases where additional visits are necessary. For such additional visits as may be necessary, the University physician will make his usual charge. But, if a student so desires, he may call a physician of his own choice and at his own expense.

4. Students not residing in their own homes may, upon the order of the University physician, be cared for in the Infirmary to the extent of the facilities available. Students who live off the campus will be charged a fee of one dollar and a quarter a day.

5. The visiting hours are 10 to 11 A. M. and 6 to 7:30 P. M. daily. Each patient is allowed only three visitors at one time. No visitor may see any patient until permission is granted by the nurse in charge.

6. Hospitalization is not available at the Infirmary for graduate students and employees. Dispensary service, however, is available for graduate students and employees who are injured in University service or University activities.

7. Students living in the dormitories, who are ill and unable to attend classes, must report to the Infirmary, between 8:00 and 9:00 A. M. If they are too ill to go to the Infirmary, they must notify the house mother so that the physician can be called to the dormitory. When possible this

should be done before 8:30 A. M. If a student is taken sick at any other time he must report to the Infirmary, before going to his room.

Medical excuses for classes missed during illness will be issued by the Infirmary physician, only when this procedure is followed.

8. Students who are ill in their homes, fraternity houses, sorority houses, or dormitories and wish a medical excuse for classes missed during the time of illness must present written excuses from their physicians, parents, or house mothers.

9. For employees of the University who handle food and milk, the University reserves the right to have its physician make physical examinations, and such inspections of sanitary conditions in homes as in the opinion of the University physician, may be desirable.

REGULATIONS, GRADES, DEGREES

REGULATION OF STUDIES

Course Numbers. Courses for undergraduates are designated by numbers 1—99; courses for advanced undergraduates and graduates, by numbers 100—199*; and courses for graduates, by numbers 200—299.

The letter following the number of a course indicates the semester in which the course is offered; thus, course 1f is offered in the first semester; 1s, in the second semester. The letter "y" indicates a full-year course. The number of semester hours' credit is shown by the arabic numeral in parentheses after the title of the course. No credit is allowed for a "y" course until it is completed.

Schedule of Courses. A semester time schedule of courses, giving days, hours, and rooms, is issued as a separate pamphlet at the beginning of each semester. Classes are scheduled beginning 8:20 A. M.

Definition of Credit Unit. The semester hour, which is the unit of credit in the University, is the equivalent of a subject pursued one period a week for one semester. Two or three periods of laboratory or field work are equivalent to one lecture or recitation period. The student is expected to devote three hours a week in classroom or laboratory or in outside preparation for each credit hour in any course.

Number of Hours. The normal student load is from 15 to 19 semester hours, according to curriculum and year. These variations are shown in the appropriate chapters in Section II describing the several divisions of the University. No student may carry either more or less than the prescribed number of hours without specific permission from the dean of his college.

EXAMINATION AND MARKS

Examinations. Examinations are held at the end of each semester in accordance with the official schedule of examinations. Students are required to use the prescribed type of examination book in final examinations; and, also, when requested to do so by the instructor, in tests.

*But not all courses numbered 100 to 199 may be taken for graduate credit.

Final examinations are held in all courses except in classes where the character of the work will permit the instructor to note frequently the progress and proficiency of the student—in which case they may be omitted upon approval of the head of the department and dean of the college. Periodic examinations and tests are given during regularly scheduled class periods. Final examinations, where required, are given according to schedule and are of not more than three hours' duration each.

Marking. The system of marking is uniform in the different departments and divisions of the University.

The following symbols are used for marks: *A*, *B*, *C*, *D*, *F*, and *I*. The first four, *A*, *B*, *C*, and *D*, are passing; *F*, failure; *I*, incomplete.

Mark *A* denotes superior scholarship; mark *B*, good scholarship; mark *C*, fair scholarship and mark *D*, passing scholarship.

At least three-fourths of the credits required for graduation must be earned with marks of *A*, *B*, and *C*. A student who receives the mark of *D* in more than one-fourth of his credits must take additional courses or repeat courses until he has met these requirements.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a mark of *D* will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

A student with a mark of *F* has failed in the course and must repeat the entire course in order to receive credit for it. In case of a failure in a required course a student must enroll in that subject again the first time it is offered unless excused by the dean.

The mark of *I* (Incomplete) is exceptional, and is to be given only to a student whose work in a course has been qualitatively satisfactory, when, because of illness or other circumstances beyond his control, he has been unable to complete the requirement. In each case where the instructor gives an *I*, he shall enter on the class card a reason of the nature stated above, with an estimate of the quality of the student's work. In cases where this mark is given the student must complete the work assigned by the instructor by the end of the first semester in which that subject is again offered or the mark becomes *F*.

Work of mark *D*, or of any passing mark, cannot be raised to a higher mark except by repeating the course. A student who repeats a course which he failed or for which he has received credit for work done at the University, or elsewhere, must meet all the requirements of the course, including regular attendance, laboratory work, and examinations. His final mark will be substituted for the mark already recorded, but he will not receive any additional credit for the course.

A mark of *D* received in the first semester of a course cannot be raised by virtue of a higher mark earned in the second semester of that course.

REPORTS

Written reports of grades are sent by the Registrar to parents or guardians at the close of each semester.

ELIMINATION OF DELINQUENT STUDENTS

A student must attain passing marks in fifty per cent of the semester hours for which he is registered, or he is automatically dropped from the University. The registrar notifies the student, his parent or guardian, and the student's dean of this action. A student who has been dropped for scholastic reasons may appeal in writing to the Committee on Admission, Guidance, and Adjustment for reinstatement. The Committee is empowered to grant relief for just cause. A student who has been dropped from the University for scholastic reasons, and whose petition for reinstatement is denied, may again petition after a lapse of at least one semester.

The University reserves the right to request at any time the withdrawal of a student who cannot or does not maintain the required standard of scholarship, or whose continuance in the University would be detrimental to his or her health, or to the health of others, or whose conduct is not satisfactory to the authorities of the University. *Students of the last class may be asked to withdraw even though no specific charge be made against them.*

JUNIOR STANDING

No student will be certified as a junior, or be permitted to select a major or minor, or to continue in a fixed curriculum until he or she shall have passed with an average grade as high as C (2.0) the minimum number of semester credits required for junior standing in any curriculum.

DEGREES AND CERTIFICATES

The University confers the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Civil Engineer, Mechanical Engineer, Electrical Engineer, Bachelor of Laws, Doctor of Medicine, Doctor of Dental Surgery, and Bachelor of Science in Pharmacy.

Students in the two-year and three-year curricula are awarded certificates.

The requirements for graduation vary according to the character of work in the different colleges and schools. For full information regarding the requirements for graduation in the several colleges consult the appropriate chapters in Section II.

No baccalaureate degree will be awarded to a student who has had less than one year of resident work in this University. The last thirty credits of any curriculum leading to a baccalaureate degree must be taken in residence at the University of Maryland.

At least three-fourths of the credits required for graduation must be earned with grades of A, B, and C.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

Each candidate for a degree must file in the office of the Registrar before March 1st of the year in which he expects to graduate, a formal application for a degree. In general, candidates for degrees to be conferred at the annual commencement, must be present to receive the degrees.

EXPENSES

MAKE ALL CHECKS PAYABLE TO THE UNIVERSITY OF MARYLAND FOR THE EXACT AMOUNT OF THE SEMESTER CHARGES.

In order that the cost of operation may be reduced, all fees are due and payable as a part of the student's registration, and all persons must come prepared to pay the full amount of the semester charges. No student will be admitted to classes until such payment has been made.

EXPENSES AT COLLEGE PARK

The University reserves the right to make such changes in fees and other costs as any occasion may make necessary. Such changes, however, in comparison with the total cost to the student would be only nominal.

FEES FOR UNDERGRADUATE STUDENTS

Maryland

	First Semester	*Second Semester*	*Total*
Fixed Charges	$ 67.50	$ 77.50	$145.00
Athletic Fee	15.00		15.00
*Special Fee	10.00		10.00
**Student Activities Fee	10.00		10.00
Infirmary Fee	5.00		5.00
Post Office Box	2.00		2.00
	$109.50	$ 77.50	$187.00

District of Columbia

	First Semester	*Second Semester*	*Total*
General Fees listed above	$109.50	$ 77.50	$187.00
Non-Resident Fee	25.00	25.00	50.00
	$134.50	$102.50	$237.00

Other States and Countries

	First Semester	*Second Semester*	*Total*
General Fee	$109.50	$ 77.50	$187.00
Non-Resident Fee	62.50	62.50	125.00
	$172.00	$140.00	$312.00

*This fee is used for improving the University grounds, and the physical training facilities, and for other University projects that have direct relationship to student activities.

** The Student Activities Fee is included at the request of the Student Government Association. Its payment is not mandatory, but it is really a matter of economy to the student, since it covers subscription to the student weekly paper, the literary magazine, and the year book; class dues, including admission to class dances; and admission to the performances of the musical and dramatic clubs.

'Advisory and Testing Service Fee.....$1.00 a year

Expenses of Students Living in Dormitories

	First Semester	*Second Semester*	*Total*
Board	$135.00	$135.00	$270.00
Lodging	$38.00–55.00	$38.00–55.00	$76.00–110.00
	$173.00–190.00	$173.00–190.00	$346.00–380.00

Special Fees

Matriculation Fee, payable on first entrance	$ 5.00
Diploma Fee for bachelor's degree	10.00
Pre-Medical and Pre-Dental Fee—Per semester in addition to fees shown above:	
Maryland	$25.00
District of Columbia	25.00
Other States and Countries	62.50

Laboratory Fees Per Semester Course

For the fee in a given course see Section III, Description of Courses

Bacteriology	$5.00-$8.00	Entomology	$2.00-$3.00
Botany	$3.00-$5.00	Home Economics	$1.00-$7.00
Chemistry	$3.00-$8.00	Industrial Education	$2.00-$4.00
Dairy	$1.00-$3.00	Physics	$3.00-$5.00
Engineering, All Students	$2.50	Radio Speech	$2.00
Engineering, Chemical	$7.00-$8.00	Zoology	$3.00-$5.00

Miscellaneous Fees

Late Registration Fee	$3.00-$5.00
Fee for each change in registration after first week	$1.00
Fee for failure to file schedule card in Registrar's Office during first week of semester	$1.00
Absence Fee twenty-four hours before or after holiday (for each class)	$3.00
Special Examination Fee	$5.00
Fee for failure to report for medical examination appointment	$2.00
Part-time students carrying six semester hours or less—per semester credit hour	$6.00
Laundry service, when desired—per semester	$13.50
Transcript of Record Fee	$1.00

Students will be charged for wilful damage to property. Where responsibility for the damage can be fixed, the individual student will be billed for it; where it cannot, the entire student body will be charged a flat fee to cover the loss or damage.

Fees For Graduate Students

Matriculation Fee	$10.00
Fee for each semester credit hour	6.00*
Diploma Fee—Master's Degree	10.00
Graduation Fee—Doctor's Degree	20.00

*For students carrying eight hours or less; for students carrying more than eight hours, $50.00 for the semester.

EXPLANATIONS

The Fixed Charges made to all students cover a part of the overhead expenses not provided for by the State.

The Board, Lodging, and Laundry charge may vary from semester to semester, but every effort will be made to keep expenses as low as possible.

Fees for Students Entering in February. Students entering the University for the second semester are charged the following fees for the items indicated: Athletic, $7.50; Special, $5.00; Student Activities, $8.00; Infirmary, $2.50, and Post Office Box, $1.00.

Fees for Part-Time Students. Undergraduate students carrying six semester hours or less of regularly scheduled courses are charged $6.00 per semester credit and regular laboratory fees. Students carrying seven or more semester hours are charged the regular fees. In the case of special courses with special fees this rule does not apply. A matriculation fee of $5.00 is charged at the first registration.

The Athletic Fee constitutes a fund which is collected from all students in the University at College Park for the maintenance of athletics, and the entire amount is turned over to the Athletic Director for disbursement. This fund is audited annually by the State Auditors.

Late Registration Fee. Students who do not complete their registration and classification, including payment of bill, on regular registration days will be required to pay $3.00 extra on the day following the last registration day, and $5.00 thereafter.

Absence Fee. In cases of absence during a period beginning 24 hours before the close of classes for a vacation or holiday and ending 24 hours after the resumption of classes, a student will be penalized by being required to pay a special fee of $3.00 for each class missed. Unless properly excused, students will be penalized, as in the case of a holiday, for absence from the first meeting of each class at the beginning of the second semester.

Students desiring to be excused from classes before and after a holiday must make application to the Dean at least one week before such holiday. Except under the conditions specified, no excuse for an absence before or after a holiday will be granted.

In exceptional cases, such as sickness or death in the family, application for an excuse must be made within one week after a student returns.

WITHDRAWALS FROM THE UNIVERSITY

Students registering for the dormitories and dining hall must continue for the year, as contracts for service and for supplies are made on an annual basis, and fees are fixed on the supposition that students will remain for the entire year.

A student desiring to withdraw from the University must secure the written consent of the parent or guardian, to be attached to the withdrawal

slip, which must be approved by the Dean and presented to the Registrar at least one week in advance of withdrawal. Charges for full time will be continued against him unless this is done. The withdrawal slip must bear the approval of the Dean of Men before being presented to the Cashier for refund.

All women students who are withdrawing from the University are requested to report to the Office of the Dean of Women.

REFUNDS

For withdrawal from the University within five days full refund is made of fixed charges, athletic fee, special fee, and student activities fee, with a deduction of $5.00 to cover cost of registration. All refunds for board, lodging, and laundry are pro-rated.

After five days, and until November 1, the first semester, or March 10, the second semester, refunds on all charges will be pro-rated, with a deduction of $5.00 to cover cost of registration.

After November 1, or March 10, refunds are granted for board and laundry only, amounts to be pro-rated.

No refunds are made without the written consent of the student's parent or guardian, except to students who pay their own expenses.

No refunds of laboratory fees are made in the first semester after October 12, 1940 and in the second semester after February 27, 1941.

HOUSING RULES AND REGULATIONS

Dormitory Room Reservations. All new students desiring to room in the dormitories should request room application cards. Men should apply to the Director of Admissions, and women to the Office of the Dean of Women. When the room application card is returned, it must be accompanied by a $15 deposit. This fee will be deducted from the first semester charges when the student registers. Rooms reserved and not claimed by freshmen or upperclassmen on their respective registration days will be cancelled. A room will be held by special request until after classes begin providing the dormitory office is notified by September 18th. Room reservation fees will not be refunded after August 15th. Reservations by students in attendance at the University should be made during the closing month of the school year.

Men's Dormitories. All men students who have made dormitory reservations should report to the dormitory office in "A" section, Calvert Hall.

All freshmen students, except those who live at home, are required to room in the dormitories.

Women's Dormitories. All women students who have made dormitory reservations should report to the dormitory to which they have been

assigned. Instructions regarding rules and regulations and any other information desired by the student will be given by head resident on duty.

Off-Campus Housing. All housing arrangements for women students must be approved by the Office of the Dean of Women. Those women students who cannot be accommodated in the dormitories may live in private homes which have been approved for student occupancy. Information regarding these off-campus houses may be secured through the Office of the Dean of Women.

Equipment. Students assigned to dormitories should provide themselves with sufficient single blankets, at least two pairs of sheets, a pillow, pillow cases, towels, a laundry bag, a shoe bag, and a waste paper basket.

The individual student must assume responsibility for all dormitory property assigned to him. Any damage done to the property other than that which would result from ordinary wear and tear will be charged to the student concerned.

General Information. It is necessary that each student have a key for his room for which a deposit of $1.00 is required.

All students who live in the dormitories must board at the University dining hall.

Cleaning service is furnished for all rooms.

Personal baggage sent via the American Express and marked for the dormitory to which it is to be sent will be delivered when you notify the College Park Express office of your arrival.

DEFINITION OF RESIDENCE AND NON-RESIDENCE

Students who are minors are considered to be resident students, if at the time of their registration their parents* have been residents of this State† for at least one year.

Adult students are considered to be resident students, if at the time of their registration they have been residents of this State† for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this State†, by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

*The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of and stand *in loco parentis* to such minor students.

†Students in the College Park Colleges who are residents of the District of Columbia are charged two-fifths of the non-resident fee charged to other non-residents.

MISCELLANEOUS INFORMATION

In case of illness requiring a special nurse or special medical attention, the expense must be borne by the student.

Students not rooming in the dormitories may obtain board and laundry at the University at the same rates as those living in the dormitories.

Day students may get lunches at the University cafeteria or at nearby lunch rooms.

The cost of books and supplies will vary according to the course pursued by the individual student. Books and supplies average about $35.00 per year.

No diploma will be conferred upon, nor any certificate granted to a student who has not made satisfactory settlement of his account.

EXPENSES AT BALTIMORE

The fees and expenses for the professional schools located in Baltimore will be found in the section of this catalogue pertaining to the several schools in Baltimore.

SCHOLARSHIPS

The University of Maryland offers a limited number of scholarships covering fixed charges to residents of the State of Maryland who are graduates of high schools or preparatory schools.

Since the University of Maryland is interested in encouraging students who show promise, these scholarships are awarded on the basis of a student's contribution to his high school, preparatory school, or University; his scholastic average; special talents; and evidence of leadership.

A scholarship, known as the Victor E. Albright Scholarship, is awarded to a boy or girl of good character, born and reared in Garrett County and graduated from a high school in Garrett County during the year in which the scholarship is awarded. This scholarship is worth $200.00 a year. The names of prospective scholars are forwarded to the Scholarship Committee by the high school principals of Garrett County and the selection is made by lot. The recipient of this award must maintain a B average for each semester in order to keep the scholarship.

STUDENT EMPLOYMENT

A considerable number of students earn some money through employment while in attendance at the University. No student should expect, however, to earn enough to pay all of his expenses. The amounts vary, but some earn from one-fourth to three-fourths of all the required funds.

Generally the first year is the hardest for those desiring employment. After one has demonstrated that he is worthy and capable, there is much less difficulty in finding work.

Under the provisions of the National Youth Administration, the University has been enabled to offer needy students a limited amount of work on special projects, the remuneration for which averages about $13 monthly. It is not known how long the Government will continue to extend this aid.

Applications for N. Y. A. employment should be made to the Chairman of the Student Life Committee.

The University assumes no responsibility in connection with employment. It does, however, maintain a bureau to aid needy students. The nearby towns and the University are canvassed, and a list of available positions is placed at the disposal of the students. Applications should be made for this work to the Employment Service.

HONORS AND AWARDS

SCHOLARSHIP HONORS AND AWARDS

Scholarship Honors. Final honors for excellence in scholarship are awarded to one-fifth of the graduating class in each college. *First honors* are awarded to the upper half of this group; *second honors* to the lower half. To be eligible for honors, at least two years of resident work are required.

The Goddard Medal. The James Douglas Goddard Memorial Medal is awarded annually to the man from Prince George's County who makes the highest average in his studies and who at the same time embodies the most manly attributes. The medal is given by Mrs. Anne K. Goddard James, of Washington, D. C.

Sigma Phi Sigma Medal. The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to the freshman who makes the highest scholastic average during the first semester.

Alpha Zeta Medal. The Honorary Agricultural Fraternity of Alpha Zeta awards annually a medal to the agricultural student in the freshman class who attains the highest average record in academic work. The mere presentation of the medal does not elect the student to the fraternity, but simply indicates recognition of high scholarship.

Dinah Berman Memorial Medal. The Dinah Berman Memorial Medal is awarded annually to the sophomore who has attained the highest scholastic average of his class in the College of Engineering. The medal is given by Benjamin Berman.

Mortar Board Award. This is offered to the woman member of the senior class who has been in attendance at least three full years, and who has made the highest scholastic average.

Delta Delta Delta Medal. This sorority awards a medal annually to the girl who attains the highest average in academic work during the sophomore year.

Class of '26 Honor Key. The Class of 1926 of the School of Business Administration of the University of Maryland at Baltimore offers each year a gold key to the senior graduating from the College of Commerce with the highest average for the entire four year course taken at the University of Maryland.

American Institute of Chemists Medal. The American Institute of Chemists awards annually a medal and a junior membership to the graduating student, of good character and personality, majoring in chemistry, who shall have attained the highest average grade in this major subject for the entire undergraduate course, exclusive of credit received for the final semester.

Omicron Nu Sorority Medal. This sorority awards a medal annually to the freshman girl who attains the highest scholastic average during the first semester.

Bernard L. Crozier Award. The Maryland Association of Engineers awards a cash prize of $25.00 annually to the senior in the College of Engineering who, in the opinion of the faculty, has made the greatest improvement in scholarship during his stay at the University.

Alpha Lambda Delta Award. The Alpha Lambda Delta Award is given to the senior Alpha Lambda Delta girl who has had the highest average for the past three and one-half years. She must have been in attendance in the institution for the entire time.

American Society of Civil Engineers Award. The Maryland Section of the American Society of Civil Engineers awards annually a junior membership in the American Society of Civil Engineers to the senior in the Department of Civil Engineering who, in the opinion of the faculty of the Department, is the outstanding student in his class.

Tau Beta Pi Award. The Maryland Beta Chapter of Tau Beta Pi awards annually an engineers' handbook to the junior in the College of Engineering who, during his sophomore year, has made the greatest improvement in scholarship over that of his freshman year.

Tau Beta Pi Certificate of Merit. The Maryland Beta Chapter of Tau Beta Pi awards annually a certificate of merit to the initiate of the Chapter who, in the opinion of the members, has presented the best thesis during the year.

CITIZENSHIP AWARDS

Citizenship Prize for Men. An award is presented annually by Dr. H. C. Byrd, a graduate of the Class of 1908, to the member of the senior class who, during his collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

Citizenship Prize for Women. The Citizenship Prize is offered by Mrs. Albert F. Woods, wife of a former president of the University of Maryland, to the woman member of the senior class who, during her collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

MILITARY AWARDS

Mahlon N. Haines '94 Trophy. This is offered to the major of the winning battalion.

Military Department Award. Gold second lieutenant's insignia to the major of the winning battalion.

The Governor's Cup. This is offered each year by His Excellency, the Governor of Maryland, to the best drilled company.

Company Award. The Reserve Officers' Association, Montgomery County Chapter, awards annually to the captain of the best drilled company of the University, gold second lieutenant's insignia.

The Alumni Cup. The Alumni offer each year a cup to the commanding officer of the best drilled platoon.

Scabbard and Blade Cup. This cup is offered for the commander of the winning platoon.

Class of '99 Gold Medal. The class of 1899 offers each year a gold medal to the member of the battalion who proves himself the best drilled soldier.

A Gold Medal is awarded to the member of the Varsity R. O. T. C. Rifle Team who fired the high score of each season.

A Gold Medal is awarded to the member of the Freshman Rifle Team who fired the high score of each season.

Pershing Rifle Medals to each member of the winning squad in the squad drill competition.

Mehring Trophy Rifle Competition Gold Medal to the student firing the highest score in this competition; **A Silver Medal** to the student showing greatest improvement during the year in this competition.

Pershing Rifle Medals to the three best drilled students in Pershing Rifles.

ATHLETIC AWARDS

Silvester Watch for Excellence in Athletics. A gold watch is offered annually to "the man who typified the best in college athletics". The watch is given in honor of a former President of the University, R. W. Silvester.

Maryland Ring. The Maryland Ring is offered by Charles L. Linhardt to the Maryland man who is adjudged the best athlete of the year.

PUBLICATIONS AWARDS

Medals are offered in *Diamondback*, *Terrapin*, and *Old Line* work, for the students who have given most efficient and faithful service throughout the year.

LOANS

The Kappa Kappa Gamma Sorority offers annually a Sigma Delta loan of one hundred dollars, without interest, to a woman student registered in the University of Maryland and selected by the Scholarship Committee—the

said Committee to be composed of the deans of all Colleges in which girls are registered, including the Dean of Women and the Dean of the Graduate School.

A. A. U. W. Loan. The College Park Branch of the American Association of University Women maintains a fund from which loans are made to women students of junior or senior standing who have been in attendance at the University of Maryland for at least one year. Awards in varying amounts are made on the basis of scholarship, character, and financial need. Applications should be made to the Scholarship Committee of the A. A. U. W. on blanks which may be obtained through the office of the Dean of Women.

In addition to the above loans there are from time to time others that are made available by various women's organizations in the State of Maryland. Information regarding these may be secured upon request from the Office of the Dean of Women.

STUDENT ACTIVITIES

The following description of student activities covers those of the undergraduate divisions of College Park. The description of those in the Baltimore divisions is included in the appropriate chapters in Section II.

GOVERNMENT

Regulation of Student Activities. The association of students in organized bodies, for the purpose of carrying on voluntary student activities in orderly and productive ways, is recognized and encouraged. All organized student activities are under the supervision of the Student Life Committee, subject to the approval of the President. Such organizations are formed only with the consent of the Student Life Committee and the approval of the President. Without such consent and approval no student organization which in any way represents the University before the public, or which purports to be a University organization or an organization of University students, may use the name of the University in connection with its own name, or in connection with its members as students.

Student Government. The Student Government Association consists of the Executive Council, the Women's League, and the Men's League, and operates under its own constitution. Its officers are a President, a Vice-President, a Secretary-Treasurer, President of Women's League and President of Men's League.

The Women's League, in cooperation with the Office of the Dean of Women, handles all matters pertaining to women students.

The Men's League, in cooperation with the Office of the Dean of Men, handles all matters pertaining to men students.

The Executive Council performs the executive duties incident to managing student affairs, and works in coöperation with the Student Life Committee.

The Student Life Committee, a faculty committee appointed by the President, keeps in close touch with all activities and conditions, excepting classroom work, that affect the student, and, acting in an advisory capacity, endeavors to improve any unsatisfactory conditions that may exist.

A pamphlet entitled *Academic Regulations,* issued annually and distributed to the students in the fall, contains full information concerning student matters as well as a statement of the rules of the University.

Eligibility to Represent the University. Only students in good standing are eligible to represent the University in extra-curricular contests. In addition, various student organizations have established certain other requirements. To compete in varsity athletics a student must pass at least twenty-four hours of work during a preceding year.

Discipline. In the government of the University, the President and faculty rely chiefly upon the sense of responsibility of the students. The student who pursues his studies diligently, attends classes regularly, lives honorably, and maintains good behavior meets this responsibility. In the interest of the general welfare of the University, those who fail to maintain these standards are asked to withdraw. Students are under the direct supervision of the University only when on the campus, but they are responsible to the University for their conduct wherever they may be.

Fraternities and sororities, as well as all other clubs and organizations recognized by the University, are expected to conduct their social and financial activities in accordance with the rules of good conduct and upon sound business principles. Where such rules and principles are observed, individual members will profit by the experience of the whole group, and thereby become better fitted for their life's work after graduation. Rules governing the different activities will be found in the list of Academic Regulations.

FRATERNITIES, SOCIETIES, AND CLUBS

Honorary Fraternities. Honorary fraternities and societies in the University at College Park are organized to uphold scholastic and cultural standards in their respective fields. These are Phi Kappa Phi, a national honorary fraternity open to honor students, both men and women, in all branches of learning; Sigma Xi, an honorary scientific fraternity; Alpha Zeta, a national honorary agriculture fraternity recognizing scholarship and student leadership; Tau Beta Pi, a national honorary engineering fraternity; Omicron Delta Kappa, men's national honor society, recognizing conspicuous attainment in non-curricular activities and general leadership; Mortar Board, the national senior honor society for women recognizing service, leadership, and scholarship; Alpha Chi Sigma, a national honorary chemical fraternity; Scabbard and Blade, a national military society; Pershing Rifles, a national military society for basic course R. O. T. C. students; Pi Delta Epsilon, a national journalistic fraternity; Alpha Lambda Delta, a national freshman women's scholastic society; Omicron Nu, a national home economics society; Alpha Psi Omega, a national dramatic society; and

Beta Alpha Psi, national accounting honorary fraternity; and Pi Sigma Alpha, honorary political science fraternity.

Fraternities and Sororities. There are fourteen national fraternities, six national sororities, and three local sororities at College Park. These in the order of their establishment at the University are Kappa Alpha, Sigma Phi Sigma, Sigma Nu, Phi Sigma Kappa, Delta Sigma Phi, Alpha Gamma Rho, Theta Chi, Phi Alpha, Tau Epsilon Phi, Alpha Tau Omega, Phi Delta Theta, Lambda Chi Alpha, Alpha Lambda Tau, and Sigma Alpha Mu, national fraternities; and Alpha Omicron Pi, Kappa Delta, Kappa Kappa Gamma, Delta Delta Delta, Alpha Xi Delta, and Phi Sigma Sigma, national sororities; and Alpha Sigma, Alpha Delta, and Kappa Alpha Sigma, local sororities.

Clubs and Societies. Many clubs and societies, with literary, scientific, social and other special objectives, are maintained in the University. Some of these are purely student organizations; others are conducted jointly by students and members of the faculty. The list is as follows: Agricultural Council, Authorship Club, Bacteriology Society, Engineering Council, Horticulture Club, Live Stock Club, Calvert Debate Club, Women's Athletic Association, Footlight Club, Rossbourg Club, American Society of Mechanical Engineers, American Society of Civil Engineers, American Institute of Electrical Engineers, Chess Club, Swimming Club, International Relations Club, Opera Club, Radio Club, Camera Club, Terrapin Trail Club, Student Grange, Agricultural Economics Club, Future Farmers of America, Riding Club, Collegiate Chamber of Commerce, Der Deutsche Verein, Spanish Club, and Le Cercle Francaise.

RELIGIOUS INFLUENCES

Staff. The University recognizes its responsibility for the welfare of the students not solely in their intellectual growth, but as human personalities whose development along all lines, including the moral and religious, is included in the educational process. Pastors representing the major denominational bodies are officially appointed by the Churches for work with the students of their respective faiths. Each of the Student Pastors also serves a local church of his denomination, which the students are urged to attend.

Committee on Religious Affairs and Social Service. A faculty committee on Religious Affairs and Social Service has as its principal function the stimulation of religious thought and activity on the campus. It brings noted speakers on religious subjects to the campus from time to time. The committee coöperates with the student pastors in visiting the students, and assists the student denominational clubs in every way that it can. Opportunities are provided for students to consult with pastors representing the denominations of their choice.

While there is no attempt to interfere with anyone's religious beliefs, the importance of religion is recognized officially and religious activities are encouraged.

Denominational Clubs. Several religious clubs, each representing a denominational group, have been organized among the students for their mutual benefit and to undertake certain types of Christian service. This year the list includes the Baptist Student Union, the Episcopal Club, the Lutheran Club, the Newman Club, the Hillel Foundation, the Methodist Club, and the Presbyterian Club. These clubs meet monthly or semi-monthly for worship and discussion, and occasionally for social purposes. A pastor or a member of the faculty serves as adviser. Evensong is held every Sunday evening under the auspices of the various denominational clubs. A local Y. W. C. A. provides a variety of activities and services on a non-denominational basis.

STUDENT PUBLICATIONS

Four student publications are conducted under the supervision of the Faculty Committee on Student Publications.

The Diamondback, a semi-weekly, six-to-eight-page newspaper, is published by the students. This publication summarizes the University news, and provides a medium of expression for the discussion of matters of interest to the students and the faculty.

The Terrapin is the student annual published by the Junior Class. It is a reflection of student activities, serving to commemorate the principal events of the college year.

The Old Line is a monthly magazine issued by the students containing short stories, cartoons, humorous material, poetry, and features of general interest.

The "M" Book is a handbook issued each September by the Student Government Association for the benefit of incoming students to acquaint them with general University life.

ALUMNI

The alumni are organized into several units, which elect representatives to the Alumni Council, an incorporated body which manages all general alumni affairs. Different alumni units represent the School of Medicine, the School of Pharmacy, the School of Dentistry, the School of Law, and the School of Nursing, while the group of colleges at College Park are represented by one unit. The College Park unit is governed by a board made up of representatives of the various colleges located at College Park.

The Alumni Council consists of elected representatives from the several units, with a membership of twenty-four. Each alumni unit in Baltimore elects two representatives to the Council; the alumni representing the College Park group of colleges elect twelve representatives.

SECTION II
Administrative Divisions

COLLEGE OF AGRICULTURE

T. B. SYMONS, *Dean, Director of Extension, and Acting Director, Experiment Station.*
H. F. COTTERMAN, *Assistant Dean.*

The Agricultural College is the administrative unit of the University devoted especially to the agricultural industries and life of the State. Its four principal functions are as follows: (1) Resident Instruction, the training of young men and women for agricultural and related occupations; (2) Research, the conducting of systematic investigations on projects of importance to agricultural interests; (3) Extension, the rendering of assistance in the solution of farm and home problems in their natural setting; and (4) Regulatory, the enforcement of those standards and control measures in agriculture which are deemed necessary for the common good.

Resident Instruction

The courses in resident instruction are designed to provide trained personnel for agricultural and allied industries. These offerings aim to fit students for one or more of the many fields of activity affording employment to persons with special kinds of training. Education of students in fundamentals receives special attention. The twenty-four professional curricula of the College are arranged with a view to correlating technical work with associated sciences and cultural subjects. Accordingly, young men and women are given a basic general education while they are being instructed in the various branches of agriculture.

The College provides education for those who wish to engage in general farming, live stock production, some type of dairying, poultry husbandry, fruit or vegetable growing, floriculture or ornamental horticulture, field crop production, or in the highly specialized activities connected with these industries. It prepares men to serve as farm managers, for responsible positions as teachers in agricultural colleges or in departments of vocational agriculture in high schools, or as investigators in experiment stations, for extension work, for regulatory activities, for service in the United States Department of Agriculture, and for positions with commercial concerns related to agriculture. Its curricula in Bacteriology, Botany, Entomology, Food Technology, Genetics, Statistics, and Soil Technology offer rich opportunities to the student with a scientific bent of mind, and lead to positions with many ramifications in teaching, research, extension, and regulatory work.

Research

Through research of the Experiment Station, the frontiers of knowledge relating to agriculture and the fundamental sciences underlying it are constantly being extended and solutions for important problems are being found. Research projects in many fields are in progress. Students taking courses in agriculture from instructors who devote part time to research or are closely associated with it are kept in close touch with the latest discoveries and developments in the investigations under way. The findings of the Experiment Station thus provide a real source of information for use in classrooms, and make possible a virility and exactness in instruction valuable in the extreme. The authority of scientific investigation is constantly before the student.

Extension

Constant contact of the Extension Service with the problems of farmers and their families in all parts of the State through its county agents, home demonstration agents, and specialists brings additional life to resident instruction in the College of Agriculture. This Service operates in two ways: Problems confronting rural people are brought to the attention of research workers and the instructional staff, and results of research are taken to farmers and their families in their home communities through practical demonstrations. Hence the problems of the people of the State contribute to the strength of the College of Agriculture, and the College helps them in the improvement of agriculture and rural life. Instruction is vitalized through participation in or association with extension activities.

Regulatory

Through their Regulatory functions, certain trained workers in the College of Agriculture are constantly dealing with the actual problems associated with the improvement and maintenance of the standards of farm products and animals. Regulatory and control work extends over a wide range of activities and is concerned with reducing the losses due to insect pests and diseases; preventing and controlling serious outbreaks of diseases and pests of animals and plants; analyzing fertilizers, feed, and limes for guaranteed quality; and providing more reliable seeds for farm planting. These fields constitute an important part of agricultural education, as standardization and education go hand in hand in the development of an industry. Direct contact on the part of professors in their respective departments with the problems and methods involved makes for effective instruction.

Coordination of Agricultural Work

The strength of the College of Agriculture of the University of Maryland lies in the close coordination of the instructional, research, extension, and regulatory functions within the individual departments, between the several departments, and in the institution as a whole. Those who give instruction to students are closely associated with the research, extension.

and regulatory work being carried on in their respective lines, and, in many cases, devote a portion of their time to one or more of these types of activities. Close coordination of these four types of work enables the University to support a stronger faculty in the College of Agriculture, and affords a higher degree of specialization than would otherwise be possible. It insures instructors an opportunity to be always informed on the latest results of research, and to be constantly in touch with current trends and problems that are revealed in extension and regulatory activities. Heads of departments hold staff conferences to this end, so that the student at all times is as close to the developments in the frontiers of the several fields of knowledge as it is possible for organization to put him.

Advisory Councils

In order that the work of the College shall be responsive to agricultural interests and shall adequately meet the needs of the several agricultural industries in the State, and that the courses of instruction shall at all times be made most helpful for students who pursue them, Advisory Councils have been constituted in the major industries of agriculture. These Councils are composed of leaders in the respective lines of agriculture in Maryland, and the instructional staff of the College of Agriculture has the benefit of their counsel and advice at regular intervals. By this means the College, the industries, and the students are kept abreast of developments.

Facilities and Equipment

In addition to the buildings, laboratories, libraries, and equipment for effective instruction in the related basic sciences and in the cultural subjects, the University of Maryland is provided with excellent facilities for research and instruction in agriculture. Farm lands, totaling more than 1200 acres, are owned and operated for instructional and investigational purposes. One of the most complete and modern plants for dairy and animal husbandry work in the country, together with herds of the principal breeds of dairy cattle and livestock, provides facilities and materials for instruction and research in these industries. Excellent laboratory and field facilities are available in the Agronomy Department for breeding and selection in farm crops and for soils research. The Poultry Department has a building for laboratories and classrooms, a plant comprising thirty-four acres, and flocks of all the important breeds of poultry. The Horticulture Department is housed in a separate building, and has ample orchards and gardens for its various lines of work.

Departments

The College of Agriculture includes the following departments: Agricultural Economics and Farm Management; Agricultural Education and Rural Life; Agricultural Engineering; Agronomy (including Crops and Soils); Animal and Dairy Husbandry; Bacteriology; Botany (including Plant Pathology, Plant Physiology, and Bio-chemistry); Entomology (including Bee Culture); Genetics and Statistics; Horticulture (including Pomology

and Olericulture, Floriculture and Ornamental Horticulture); Poultry Husbandry; Veterinary Science.

Admission

The requirements for admission are discussed under Entrance, in Section I.

Junior Standing

To attain junior standing in the College of Agriculture, a student must have an average grade of C in not less than 62 semester hours.

Requirements for Graduation

A minimum of one hundred and twenty-eight semester hours is required for graduation. The detailed requirements for each department are included in the discussion of Curricula in Agriculture.

Farm and Laboratory Practice

The head of each department will help to make available opportunities for practical or technical experience along his major line of study for each student whose major is in that department and who is in need of such experience. For inexperienced students in many departments this need may be met by one or more summers spent on a farm.

Student Organizations

Students find opportunity for varied expression and growth in the several voluntary organizations sponsored by the College. These organizations are as follows: Student Grange, Livestock Club, Future Farmers of America, Bacteriological Society, Alpha Zeta, Agricultural Economics Club, and the Agricultural Student Council.

Membership in these organizations is voluntary, and no college credits are given for work done in them; yet much of the training obtained is fully as valuable as that acquired from regularly prescribed courses.

The Student Grange represents the Great National Farmers' fraternity of the Order of Patrons of Husbandry, and emphasizes training for rural leadership. It sponsors much deputation work in local granges throughout the State. The Livestock Club conducts the Students' Fitting and Showing Contest held on the campus in the Spring. The Future Farmers of America foster interest in vocational education, and the Collegiate Chapter serves as host Chapter in connection with high school judging contests held at the University. The Bacteriological organization is representative of a national group with chapters in many institutions. The Agricultural Economics group conducts special studies in the field of Agricultural Economics. All these organizations have regular meetings, arrange special programs, and contribute to the extra-curricular life of students.

Alpha Zeta—National Agricultural Honor Fraternity

Membership in this fraternity is chosen from students in the College of Agriculture who have displayed agricultural motive and executive ability. This organization fosters scholarship, and to that end awards a gold medal to the member of the freshman class in agriculture who makes the highest record during the year.

Agricultural Student Council

The Agricultural Student Council is a delegate body made up of two representatives from each of the above organizations. Its purpose is to coordinate activities of students in agriculture, and to promote work which is beneficial to the College of Agriculture. It is the organization that is representative of the agricultural student body as a whole.

CURRICULA IN AGRICULTURE

Curricula within the College of Agriculture divide into three general classes: Technical, Scientific, and Special.

(1) Technical curricula are designed to prepare students for farming as owners, tenants, managers, or specialists; for positions as county agricultural agents, or teachers of agriculture in high schools; as executives, salesmen, or other employees in commercial businesses with close agricultural contact and point of view.

(2) Scientific curricula are designed to prepare students for positions as technicians, teachers, or investigators. These positions are usually in the various scientific and educational departments, or bureaus of the Federal, State, or Municipal governments; in the various schools or experiment stations; or in the laboratories of private corporations.

(3) Courses of study may be arranged for any who desire to return to the farm after one or more years of training in practical agricultural subjects. (For details see Special Students in Agriculture, page 102.)

Student Advisers

Each student in the College of Agriculture is assigned to an adviser from the faculty. Advisers are of two kinds—departmental and general. Departmental advisers consist of heads of departments or persons selected by them to advise students with curricula in their respective departments. General advisers are selected for students who have no definite choice of curriculum in mind, or who wish to pursue the general curriculum in agriculture.

Cases of students with poor records are referred to the Admission, Guidance, and Adjustment Committee, for review and advice.

Electives

The electives in the suggested curricula which follow afford opportunity for those who so desire to supplement major and minor fields of study or to add to their general training.

With the advice and consent of those in charge of his registration, a student may make such modifications in his curriculum as are deemed advisable to meet the requirements of his particular need.

Students wishing to take Advanced R. O. T. C. may, upon consultation with the Department Head and with the consent of the Dean, substitute this subject either as an elective or for certain requirements in junior and senior years.

Freshman Year

The program of the freshman year in the College of Agriculture is common to all curricula of the College. Its purpose is to afford the student an opportunity to lay a broad foundation in subjects basic to agriculture and the related sciences, to articulate beginning work in college with that pursued in high or preparatory schools, to provide opportunity for wise choice of programs in succeeding years, and to make it possible for a student before the end of the year to change from one curriculum to another, or from the College of Agriculture to the curriculum in some other college of the University with little or no loss of credit.

Students entering the freshman year with a definite choice of curriculum in mind are sent immediately to departmental advisers for counsel as to the wisest selection of freshman electives from the standpoint of their special interests and their probable future programs. Students entering the freshman year with no definite curriculum in mind, or who are undecided, are assigned to general advisers, who assist with the choice of freshman electives and during the course of the year acquaint them with the opportunities in the upper curricula in the College of Agriculture and in the other divisions of the University. If by the close of the freshman year a student makes no definite choice of a specialized curriculum, he continues under the guidance of his general adviser and at the beginning of the sophomore year enters Agriculture (General Curriculum).

Curriculum for Freshman Year

	Semester I	II
General Chemistry (Chem. 1y)	4	4
Survey and Composition I (Eng. 1y)	3	3
General Botany (Bot. 1f)	4	—
General Zoology (Zool. 1s)	—	4
Reading and Speaking (Speech 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or Phys. Ed. 2y and 4y)	1	1
Freshman Lectures	—	—
Elect one of the following:		
Modern Language (French or German)	3	3
*Elements of College Mathematics (Math. 8f, 10s)	3	3
Elementary Physics (Phys. 3y)	3	3
Agricultural Industry and Resources (A. E. 1f) and Farm Organization (A. E. 2s)	3	3

*Students who expect to pursue the curricula in Statistics and Agricultural Chemistry must be prepared to elect Math. 21f and 22s.

AGRICULTURE

(General Curriculum)

Students who desire to pursue a general course in Agriculture should enter the following curriculum. It is designed for those seeking a general, rather than a specialized, knowledge of the subject.

Sophomore Year	Semester I	Semester II
Survey and Composition (Eng. 2f, 3s)	3	3
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	3
Cereal Crop Production (Agron. 1f)	3	—
Forage Crop Production (Agron. 2s)	—	3
General Animal Husbandry (A. H. 2s)	—	2
Fundamentals of Dairying (D. H. 1f)	3	—
Physical or Biological Science Sequence	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	16
Junior Year		
Fundamentals of Dairying (D. H. 2s)	—	3
Genetics (Gen. 101f)	3	—
Fundamentals of Economics (Econ. 57s)	—	3
General Horticulture (Hort. 1f, 2s)	3	3
Poultry Production (P. H. 1f)	3	—
Poultry Management (P. H. 2s)	—	3
Advanced Public Speaking (Speech 3f, 4s)	2	2
Electives	5	3
	16	17
Senior Year		
Farm Machinery (Agr. Engr. 101f)	3	—
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s)	—	3
Farm Management (A. E. 108f)	3	—
Analysis of Farm Business (A. E. 107s)	—	3
Feeds and Feeding (A. H. 102f)	3	—
Rural Life and Education (R. Ed. 110s)	—	3
Electives	6	6
	15	15

AGRICULTURAL CHEMISTRY

In the field of Chemistry there is an opportunity for one properly trained in the biological sciences and appreciative of the chemical aspects of agriculture. The following curriculum is intended primarily to insure adequate instruction in the fundamentals of both the physical and biological sciences. It may be adjusted through the selection of electives to fit the student for work in agriculture experiment stations, soil bureaus, geological surveys, food laboratories, industries engaged in the process of handling food products and the fertilizer industries.

The outline calls for five years of study. The completion of four years of this outline leads to the degree of Bachelor of Science. By the proper use of electives in the fourth year and the continuation of this course of study for the fifth year and the presentation of a satisfactory thesis, the student may qualify for the Master's degree.

Curriculum

Sophomore Year	Semester I	Semester II
Survey and Composition (Eng. 2f, 3s)	3	3
Calculus (Math. 23y)	4	4
Agricultural Industry and Resources (A. E. 1f)	3	—
Farm Organization (A. E. 2s)	—	3
Qualitative Analysis (Chem. 2y)	3	3
Electives (Biology)	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	19	19
Junior Year		
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elementary Organic Laboratory (Chem. 8By)	2	2
Quantitative Analysis (Chem. 6y)	4	4
Modern Language	3	3
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	3
Electives (Biology)	3	3
	17	17
Senior Year		
Principles of Economics (Econ. 51y)	3	3
Modern Language	3	3
Electives (Biology)	3	3
General Physics (Phys. 1y)	4	4
Electives	3	3
	16	16

Fifth Year		
Advanced Organic Chemistry (Chem. 116y)	2	2
Organic Laboratory (Chem. 117y)	1	1
Advanced Organic Laboratory (Chem. 118y)	1	1
Physical Chemistry (Chem. 102Ay)	3	3
Physical Chemistry Laboratory (Chem. 102By)	2	2
Electives (Chemistry)	3	3
Electives (Biology)	3	3
	15	15

AGRICULTURAL EDUCATION AND RURAL LIFE

The objectives of the curricula in Agricultural Education are the teaching of secondary vocational agriculture, the work of county agents, and allied lines of the rural education service.

Curriculum A is designed for persons who have had no vocational agriculture in high school or less than two years of such instruction. Curriculum B is designed for persons who have had two or more years of thoroughgoing instruction in secondary agriculture of the type offered in Maryland high schools. Curriculum B relieves the student of the necessity of pursuing beginning agriculture courses in the first two years of his college course, permits him to carry general courses in lieu of those displaced by his vocational program in high school, and offers him an opportunity to lay a broad foundation for the advanced work in agriculture of the last two college years.

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the agricultural education curricula must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

Students with high averages upon petition may be relieved of certain requirements in these curricula, when evidence is presented showing that either through experience or through previous training the prescription is non-essential; or they may be allowed to carry an additional load.

Curriculum A.

Sophomore Year	*Semester* I	*Semester* II
Diseases of Plants (Plt. Path. 1f)	3	—
Introductory Entomology (Ent. 1s)	—	3
Cereal Crop Production (Agron. 1f)	3	—
Forage Crop Production (Agron. 2s)	—	3
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	3
Fundamentals of Dairying (D. H. 1f, 2s)	3	3
General Horticulture (Hort. 1f)	3	—
Fundamentals of Economics (Econ. 57s)	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17

Junior Year	*Semester* I	*Semester* II
Farm Machinery (Agr. Engr. 101f)	3	—
Farm Economics (A. E. 100f)	3	—
Marketing of Farm Products (A. E. 102s)	—	3
Poultry Production (P. H. 1f)	3	—
Poultry Management (P. H. 2s)	—	3
General Animal Husbandry (A. H. 2s)	—	2
General Horticulture (Hort. 2s)	—	3
General Shop (Ind. Ed. 167y)	1	1
Advanced Public Speaking (Speech 3f, 4s)	2	2
Feeds and Feeding (A. H. 102f)	3	—
Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107s)	—	3
	15	17
Senior Year		
Farm Management (A. E. 108f)	3	—
Educational Psychology (Psych. 10f)	3	—
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s)	—	3
Farm Practicums and Demonstrations (R. Ed. 101f, 102s)	1	1
The High School (Ed. 103s)	—	3
Teaching Secondary Vocational Agriculture (R. Ed. 109f)	3	—
Rural Life and Education (R. Ed. 110s)	—	3
Departmental Organization and Administration (R. Ed. 112s)	—	1
Farm Mechanics (Agr. Engr. 104f)	1	—
Teaching Farm Mechanics in Secondary Schools (R. Ed. 114s)	—	1
Practice Teaching (R. Ed. 120y)	2	3
Electives	2	—
	15	15

Curriculum B.

Sophomore Year		
Diseases of Plants (Plt. Path. 1f)	3	—
Introductory Entomology (Ent. 1s)	—	3
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	3
General Horticulture (Hort. 1f, 2s)	3	3
Fundamentals of Dairying (D. H. 1f)	3	—
Fundamentals of Economics (Econ. 57s)	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
*Electives	3	3
	17	17

*If Elementary Physics (Phys. 3y) is not elected in the freshman year, it must be elected in the sophomore year.

Junior Year	*Semester I*	*II*
Farm Machinery (Agr. Engr. 101f)	3	—
General Shop (Ind. Ed. 167y)	1	1
Advanced Public Speaking (Speech 3f, 4s)	2	2
Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107s)	—	3
Electives	11	11
	17	17
Senior Year		
Educational Psychology (Psych. 10f)	3	—
Farm Management (A. E. 108f)	3	—
Farm Practicums and Demonstrations (R. Ed. 101f, 102s)	1	1
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s)	—	3
The High School (Ed. 103s)	—	3
Teaching Secondary Vocational Agriculture (R. Ed. 109f)	3	—
Rural Life and Education (R. Ed. 110s)	—	3
Departmental Organization and Administration (R. Ed. 112s)	—	1
Farm Mechanics (Agr. Engr. 104f)	1	—
Teaching Farm Mechanics in Secondary Schools (R. Ed. 114s)	—	1
Practice Teaching (R. Ed. 120y)	2	3
	13	15

Electives in Curriculum B to be as follows:

Advanced Animal and Dairy Husbandry	6 hours
Advanced Agricultural Economics, Farm Management	6 hours
Advanced Agronomy	6 hours
Advanced Poultry	6 hours
Subjects of Special Interest	4 hours

AGRICULTURAL ENGINEERING

The department of Agricultural Engineering offers to students of agriculture training in those agricultural subjects which are based upon engineering principles. These subjects may be grouped under three heads: farm machinery and motors, farm buildings, and farm drainage.

The modern tendency in farming is to reduce production costs by the use of farm machinery units of efficient size and design. In many cases horses are being replaced by tractors. Trucks, automobiles, stationary engines and electrical equipment are found on almost all farms. It is highly advisable that the student of any branch of agriculture have a working knowledge of the design, adjustments, and repair of these machines.

More than one-fourth of the total value of Maryland farms is represented by the buildings. The study of the design of various buildings, from the standpoint of economy, sanitation, efficiency, and appearance, is, therefore, important.

Subjects included in the study of drainage are as follows: the principles of land drainage, the design and construction of tile drain systems and open ditches, and Maryland drainage laws.

FIVE-YEAR PROGRAM IN AGRICULTURE—ENGINEERING

For those students who wish to specialize in the application of engineering principles to the physical and biological problems of agriculture there is offered a combined program, extending over a five-year period, arranged jointly by the College of Agriculture and the College of Engineering, and leading to a degree from each of these Colleges.

Graduates from such a program should be prepared to enter State, Federal or commercial fields of activity in such work as soil and water conservation, rural electrification, design and sales of farm machinery and structures, and in the development of new uses for farm products and the profitable utilization of farm wastes and by-products.

To be properly trained in these fields a student should have a broader knowledge of basic and applied engineering principles than could be provided in a four-year course in agriculture. He would also need a broader training in the fundamentals of agriculture than a standard four-year course in engineering could furnish.

All students electing the five-year combined program follow the same curriculum for the first year. At the end of the first year they decide whether their final objective is a degree in Civil, Electrical, Mechanical, or Chemical Engineering.

Upon completion of the required course of study the degree of Bachelor of Science in Agriculture is granted at the end of the fourth year. For the fifth year the student registers in the College of Engineering, and at the end of that year receives his degree in Civil, Electrical, Mechanical or Chemical Engineering from that College.

Curriculum

Freshman Year	*Semester I*	*II*
Survey and Composition (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
College Algebra and Analytic Geometry (Math 21f, 22s)	4	4
General Chemistry (Chem. 1y)	4	4
Engineering Drawing (Dr. 1f)	2	—
Descriptive Geometry (Dr. 2s)	—	2
Forge Practice (Shop 1s)	—	1
Introduction to Engineering (Engr. 1f)	1	—
Introductory Zoology (Zool. 2f)	3	—
Introductory Botany (Bot. 2s)	—	3
Agriculture Freshman Lectures	—	—
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	19	19

The remainder of this curriculum is for the student whose objective, at the end of the fifth year, is a degree in Civil Engineering. Similar curricula will be arranged for options in Electrical, Mechanical and Chemical Engineering.

Sophomore Year—Civil Engineering Option	Semester I	Semester II
Oral Technical English (Speech 5f)	2	—
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Descriptive Geometry (Dr. 3f)	2	—
Statics and Dynamics (Mech. 1s)	—	3
Plane Surveying (Surv. 2y)	2	3
Geology (Geol. 1f)	3	—
Elective in Agriculture	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	—	—
	20	20

Junior Year—Civil Engineering Option		
Advanced Oral Technical English (Speech 6y)	1	1
Strength of Materials (Mech. 101f)	5	—
Materials of Engineering (Mech. 103s)	—	2
Advanced Surveying (Surv. 101f)	4	—
Farm Machinery (Agr. Engr. 101f)	3	—
Farm Drainage (Agr. Engr. 107s)	—	2
Farm Mechanics (Agr. Engr. 104f)	1	—
Soils and Fertilizers (Soils 1s)	—	3
Fundamentals of Economics (Econ. 57s)	—	3
Electives in Agriculture	3	5–6
	—	—
	17	16–17

Fourth Year—Civil Engineering Option	Semester I	Semester II
Hydraulics (C. E. 101s)	—	4
Principles of Mechanical Engineering (M. E. 112f)	3	—
Principles of Electrical Engineering (E. E. 101s)	—	3
Curves and Earthwork (C. E. 103f)	3	—
Theory of Structures (C. E. 104s)	—	5
Biological Statistics (Stat. 111f)	2	—
Advanced Biological Statistics (Stat. 112s)	—	2
Farm Buildings (Agr. Engr. 105f)	2	—
Gasoline Engines and Tractors (Agr. Engr. 102s)	—	3
Farm Economics (A. E. 100f)	3	—
Farm Management (A. E. 108f)	3	—
Technical Society	—	—
	—	—
	16	17

Fifth Year—Civil Engineering Option

The curriculum for the fifth year is the senior year curriculum in civil engineering, without change, as shown under College of Engineering.

AGRONOMY

In the Department of Agronomy are grouped the courses in farm crops, soils, and plant breeding.

The curriculum in farm crops aims to give the student the fundamental principles of crop production. Special attempt is made to adapt the work to the young man who wishes to apply scientific principles of field crop culture and improvement on the farm. At the same time enough freedom is given the student in the way of electives so that he may register for subjects which might go along with the growing of crops on his particular farm. A student graduating from the course in agronomy should be well fitted for general farming, for the production of improved seeds, for employment with commercial firms, for investigational work in the State or Federal Experiment Stations, or for county agent work.

The division of soils gives instruction in the physics, chemistry, and biology of the soil, the courses being designed to equip the future farmer with a complete knowledge of his soil and also to give adequate training to students who desire to specialize in soils. Those who are preparing to take up research or teaching are expected to take graduate work in addition to the regular undergraduate courses that are offered. The division possesses the necessary equipment and facilities for the instruction in these subjects, and in addition affords opportunities for the student to come in contact with the research at the Agricultural Experiment Station, especially in the pot culture laboratories, and on the experimental fields at the station and in other parts of the State.

Graduate students will find unusual opportunities to fit themselves to teach soils in agricultural colleges, to conduct research in experiment

stations, and to carry on work with the Bureau of Plant Industry and the Bureau of Chemistry and Soils, United States Department of Agriculture.

Curriculum

Sophomore Year	*Semester* I	*Semester* II
Cereal Crop Production (Agron. 1f)	3	—
Forage Crop Production (Agron. 2s)	—	3
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	3–5
*Elements of Organic Chemistry (Chem. 12Ay)	2	2
*Elements of Organic Laboratory (Chem. 12By)	1	1
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
Select from following:		
General Physics (Phys. 1y)	4	4
Agriculture (Any course under 100)	2–4	2–4
	—	—
	13–15	13–17

Crops Division

Junior Year		
Genetics (Gen. 101f)	3	—
Technology of Crop Quality (Agron. 102f)	2 or 3	—
General Bacteriology (Bact. 1f)	4	—
Expository Writing (Eng. 5f, 6s)	2	2
Plant Physiology (Plt. Phys. 101f)	4	—
Fundamentals of Economics (Econ. 57s)	—	3
Electives	1	11
	—	—
	16	16
Senior Year		
Crop Breeding (Agron. 103f)	2	—
Advanced Genetics (Gen. 102s)	—	2
Farm Economics (A. E. 100f)	3	—
Methods of Crop and Soil Investigations (Agron. 121 s)	—	2
Selected Crop Studies (Agron. 104f, 105s)	1–2	1–2
Soil Geography (Soils 103f)	3	—
Farm Machinery (Agr. Engr. 101f)	3	—
Farm Drainage (Agr. Engr. 107 s)	—	2
Farm Forestry (For. 101s)	—	2
Farm Management (A. E. 108f)	3	—
Electives	1	6
	—	—
	16–17	15–16

*Under certain conditions a sequence in biology may be substituted for Organic Chemistry.

Soils Division

Junior Year	*Semester* I	*Semester* II
Expository Writing (Eng. 5f, 6s)	2	2
Fundamentals of Economics (Econ. 57s)	—	3
General Bacteriology (Bact. 1f)	4	—
Soil Management (Soils 102 s)	—	3
Plant Physiology (Plt. Phys. 101f)	4	—
Electives	6	8
	—	—
	16	16
Senior Year		
Farm Management (A. E. 108f)	3	—
Methods of Crop and Soil Investigations (Agron. 121 s)	—	2
Soil Geography (Soils 103f)	3	—
Farm Drainage (Agr. Engr. 107s)	—	2
Soil Conservation (Soils 112s)	—	3
Electives	10	9
	—	—
	16	16

ANIMAL AND DAIRY HUSBANDRY

Modern dairy cattle, horse, beef cattle, and sheep barns have been completed on a site adjacent to the University campus. These up-to-date facilities, with choice herds and flocks, together with improvements that have been made in the dairy manufacturing plant, add materially to the equipment for instruction and research in animal and dairy husbandry.

The Department of Animal and Dairy Husbandry offers thorough instruction in the selection, breeding, feeding, management, and marketing of dairy cattle, horses, beef cattle, sheep, and swine, and in the processing and sale of milk and milk products, meat, and wool.

The curriculum in animal and dairy husbandry permits specialization and allows considerable latitude in the election of courses in other departments. Courses in accounting, soil fertility and crops, agricultural economics and marketing, bacteriology, botany, agricultural education, entomology, genetics and statistics, farm buildings and drainage, horticulture, physiological chemistry, physics, poultry, and veterinary medicine are among the supporting courses most strongly recommended for majors in animal and dairy husbandry.

Students satisfactorily majoring in animal and dairy husbandry are well equipped for general livestock and dairy cattle farming, to become County Agricultural Agents, for employment by commercial concerns, and for instructional and investigational work in colleges and experiment stations.

Students who wish to enter teaching or research work in agricultural colleges or the U. S. Department of Agriculture are urged to continue their studies as graduate students in some specific phase of research work in the Experiment Station, supported by the proper courses.

Animal Husbandry

The curriculum for the sophomore, junior, and senior years is suggested as a guide for students wishing to major in the animal husbandry field. Electives in dairy husbandry and veterinary science will be found helpful.

Curriculum

	Semester I	Semester II
Sophomore Year		
Elements of Organic Chemistry (Chem. 12 Ay)	2	2
Elements of Organic Laboratory (Chem. 12 By)	1	1
General Animal Husbandry (A. H. 2s)	—	2
Fundamentals of Dairying (D. H. 2s)	—	3
General Bacteriology (Bact. 1f)	4	—
Fundamentals of Economics (Econ. 57s)	—	3
Geology (Geol. 1f)	3	—
Cereal Crop Production (Agron. 1f)	3	—
Forage Crop Production (Agron. 2s)	—	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
Electives	2	—
	—	—
	17	16
Junior Year		
Expository Writing (Eng. 5f, 6s)	2	2
Breeds of Horses and Beef Cattle (A. H. 100f)	2	—
Breeds of Sheep and Swine (A. H. 101s)	—	2
Feeds and Feeding (A. H. 102f)	3	—
Principles of Breeding (A. H. 103s)	—	3
Genetics (Gen. 101f)	3	—
Livestock Markets and Marketing (A. H. 111f)	2	—
Livestock Management (A. H. 105s)	—	2
Livestock Judging (A. H. 107s)	—	2
Electives	4	5
	—	—
	16	16
Senior Year		
Beef Cattle and Horse Production (A. H. 109f)	3	—
Sheep and Swine Production (A. H. 110s)	—	3
Animal Nutrition (A. H. 113f)	3	—
Farm Management (A. E. 108f)	3	—
Comparative Anatomy and Physiology (V. S. 101f)	3	—
Animal Hygiene (V. S. 102s)	—	3
Electives	4	10
	—	—
	16	16

Dairy Husbandry

The Department of Dairy Husbandry offers two major lines of work; dairy production and dairy manufacturing. The dairy production option is organized to meet the requirements of students wishing to major in dairy cattle farming and in the production and sale of market milk.

Dairy Production

The curriculum for the sophomore, junior, and senior years is suggested as a guide for students majoring in dairy production. Some electives from dairy manufacturing, animal husbandry, and veterinary science will be helpful.

Curriculum

	Semester I	Semester II
Sophomore Year		
Elements of Organic Chemistry (Chem. 12 Ay)	2	2
Elements of Organic Laboratory (Chem. 12 By)	1	1
Fundamentals of Dairying (D. H. 1f, 2s)	3	3
General Bacteriology (Bact. 1f)	4	—
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	5
Forage Crop Production (Agron. 2s)	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (3y or 6y and 8y)	2	2
	—	—
	15	16
Junior Year		
Expository Writing (Eng. 5f, 6s)	2	2
Fundamentals of Economics (Econ. 57s)	—	3
Genetics (Gen. 101f)	3	—
Principles of Breeding (A. H. 103s)	—	3
Feeds and Feeding (A. H. 102f)	3	—
Dairy Cattle Management (D. H. 106f, 107s)	3	3
Dairy Cattle Judging (D. H. 103s)	—	2
Comparative Anatomy and Physiology (V. S. 101f)	3	—
Animal Hygiene (V. S. 102s)	—	3
History and Geography of Dairying (D. H. 108f)	2	—
	—	—
	16	16
Senior Year		
Dairy Cattle Feeding and Herd Management (D. H. 101f)	3	—
Dairy Breeds and Breeding (D. H. 105s)	—	2
Market Milk (D. H. 113f)	5	—
Farm Management (A. E. 108f)	3	—
Animal Nutrition (A. H. 113f)	3	—
Electives	3	14
	—	—
	17	16

Dairy Manufacturing

The option in dairy manufacturing is designed to meet the particular needs of those interested in the processing and distribution of milk, in dairy plant operation and management, and in the manufacture and sale of butter, cheese, ice cream, and other milk products. The curriculum for sophomore, junior, and senior years is suggested for students who wish to major in dairy manufacturing. Electives in dairy production, chemistry, and bacteriology will be helpful.

Curriculum

	Semester	
Sophomore Year	*I*	*II*
Elements of Organic Chemistry (Chem. 12 Ay)	2	2
Elements of Organic Laboratory (Chem. 12 By)	1	1
Quantitative Analysis (Chem. 4s)	—	4
General Bacteriology (Bact. 1f)	4	—
Fundamentals of Dairying (D. H. 1f, 2s)	3	3
Elementary Physics (Physics 3y)	3	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
Electives	1	1
	16	16
Junior Year		
History and Geography of Dairying (D. H. 108f)	2	—
Milk Bacteriology (Bact. 101f)	4	—
Dairy Products Bacteriology (Bact. 102s)	—	3
Fundamentals of Economics (Econ. 57s)	—	3
Grading Dairy Products (D. H. 115s)	—	1
Dairy Mechanics (D. H. 116s)	—	2
Expository Writing (Eng. 5f, 6s)	2	2
Cheese Making (D. H. 109f)	3	—
Butter Making (D. H. 110f)	2	—
Concentrated Milks (D. H. 111s)	—	2
Ice Cream Making (D. H. 112s)	—	3
Electives	3	0
	16	16
Senior Year		
Market Milk (D. H. 113f)	5	—
Analysis of Dairy Products (D. H. 114s)	—	3
Dairy Accounting (D. H. 117s)	—	1
Dairy Plant Experience (D. H. 121f, 122s)	2	1
Dairy Literature (D. H. 119f, 120s)	1	1
Farm Economics (A. E. 100f)	3	—
Electives	5	10
	16	16

BACTERIOLOGY

This department has been organized with two main purposes in view. The first is to give all students of the University an opportunity to obtain a general knowledge of this basic subject. The second is to prepare students for bacteriological positions (including those of dairy, sanitary, food, and soil bacteriologists; and federal, state, and municipal bacteriologists); and for public health work of various types, research, and industrial positions. Freshmen planning to major in Bacteriology should elect Mathematics in the first year.

General Bacteriology

Curriculum

	Semester	
Sophomore Year	*I*	*II*
Elements of Organic Chemistry (Chem. 12Ay)	2	2
Elements of Organic Laboratory (Chem. 12By)	1	1
German or French	3	3
General Bacteriology (Bact. 1f)	4	—
Pathogenic Bacteriology (Bact. 2s)	—	4
Expository Writing (Eng. 5f, 6s)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
Electives	3–4	3–4
	17–18	17–18
Junior Year		
Milk Bacteriology (Bact. 101f)	4	—
Sanitary Bacteriology (Bact. 112s)	—	3
Serology (Bact. 115f)	4	—
Advanced Methods (Bact. 113s)	—	2
General Physics (Phys. 1y)	4	4
Electives (Bacteriology)	—	2–4
Electives (Other)	3–5	2–6
	15–17	15–17
Senior Year		
Biological Statistics (Stat. 111f)	2	—
General Physiological Chemistry (Chem. 108s)	—	4
Journal Club (Bact. 131f, 132s)	1	1
Electives (Bacteriology)	5–6	4–2
Electives (Other)	6–9	6–10
	15–17	15–17

Food Technology

This curriculum offers combinations of courses that will equip the student with an unusually broad knowledge of the many aspects involved in food manufacture. In the curriculum are combined many of the fundamentals

of biology, chemistry, and engineering which, when supported by the proper electives and by practical experience, will serve as an excellent background for supervisory work in food factory operation, salesmanship, research in the food industries, etc.

The freshmen will enroll for the common curriculum of the Freshman Year as shown for the College of Agriculture, and will elect Elements of College Mathematics (Math. 8f, 10s). The course in Reading and Speaking (Speech 1y) may be postponed until the junior or senior years.

Curriculum

	Semester I	Semester II
Sophomore Year		
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elementary Organic Laboratory (Chem. 8By)	2	2
General Physics (Phys. 1y)	4	4
Engineering Drawing (Dr. 1f)	2	—
General Bacteriology (Bact. 1s)	—	4
Electives	5	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17
Junior Year		
Quantitative Chemistry (Chem. 4f)	4	—
Refrigeration (M. E. 106s)	—	3
Food Bacteriology (Bact. 111f)	3	—
Sanitary Bacteriology (Bact. 112s)	—	3
Elements of Physical Chemistry (Chem. 103Ay)	2	2
Elements of Physical Chemistry Laboratory (Chem. 103By)	1	1
Elements of Chemical Engineering (Ch. E. 103y)	3	3
Elements of Electrical Engineering (E. E. 1s)	—	3
Electives	3–4	1–2
	16–17	16–17
Senior Year		
Fundamentals of Economics (Econ. 57f)	3	—
Industrial Management (O. and M. 121s)	—	3
Food Analysis (Chem. 115y)	2	2
Technology Conference (F. Tech. 130y)	1	1
Regulatory Control (F. Tech. 110f)	1	—
Food Sanitation (F. Tech. 120s)	—	2
Advanced Unit Operations (Ch. E. 105y)	5	5
Electives	4–5	3–4
	16–17	16–17

BOTANY

The Department of Botany offers three major fields of work: general botany and morphology, plant pathology, and plant physiology and ecology. The required courses for the freshman and sophomore years are the same for all students. In the junior and senior years, the student elects botanical courses to suit his particular interests in botanical science. Both the junior and senior years also allow considerable freedom in the election of non-botanical courses, in order to round out a fairly broad cultural education. Through cooperation with the College of Education, students who wish to meet the requirements for the state high school teacher's certificates may elect the necessary work in education.

The curriculum as outlined lays a good foundation for students who wish to pursue graduate work in botanical science in preparation for college teaching and for research in state experiment stations, in the United States Department of Agriculture, and in private research institutions and laboratories.

The curriculum also affords students an opportunity for training for other vocations involving various botanical applications, such as extension work, and positions with seed companies, canning companies, companies making spray materials, and with other commercial concerns.

Curricula

General Botany and Morphology, Physiology, and Pathology

	Semester I	Semester II
Sophomore Year		
Diseases of Plants (Plt. Path. 1f)	4	—
Local Flora (Bot. 4s)	—	2
General Botany (Bot. 3s)	—	4
General Bacteriology (Bact. 1f)	4	—
Elements of College Mathematics (Math. 8f, 10s)	3	3
*Modern Language	3	3
Electives	—	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	—	—
	16	16

General Botany and Morphology, and Plant Physiology

Junior Year		
Plant Physiology (Plt. Phys. 101f)	4	—
General Physics (Phys. 1y)	4	4
Plant Ecology (Plt. Phys. 102s)	—	3
Methods in Plant Histology (Bot. 107s)	—	2
Electives	8	7
	—	—
	16	16

*Twelve hours of modern language are required. If it is not begun until the sophomore year, the last six hours will be elected in the junior or senior year.

Senior Year	*Semester I*	*II*
Genetics (Gen. 101f)	3	—
Botanical Electives (Maximum)	7	10
Other Electives (Minimum)	6	6
	16	16

Plant Pathology

Junior Year		
Plant Physiology (Plt. Phys. 101f)	4	—
General Physics (Phys. 1y)	4	4
Introductory Entomology (Ent. 1s)	—	3
Elements of Organic Chemistry (Chem. 12Ay)	2	2
Elements of Organic Laboratory (Chem. 12By)	1	1
Research Methods (Plt. Path. 104s)	—	2
Electives	6	3
	17	15

Senior Year		
Plant Ecology (Plt. Phys. 102s)	—	3
Mycology (Plt. Path. 108f)	4	—
Plant Anatomy (Bot. 101f)	3	—
Genetics (Gen. 101f)	3	—
Diseases of Fruits (Plt. Path. 101f) or Diseases of Garden and Field Crops (Plt. Path. 102s)	2	or 2
Electives	4–6	11–13
	16	16

ENTOMOLOGY

This department is engaged in the teaching of entomology to all agricultural students as a basis for future work in pest control, in the preparation of technically trained entomologists, and in offering courses to students in Arts and Sciences and Education.

The success of the farmer, particularly the fruit and vegetable grower, is in large measure dependent upon his knowledge of the methods of preventing or combating pests. Successful methods of control are emphasized in the economic courses.

The fact that the entomological work of the Experiment Station, the Extension Service, the College of Agriculture, and the State Entomologist are in one administrative unit enables the student to avail himself of the many advantages accruing therefrom. Advanced students may be assigned

to work on Station projects already under way. The department takes every advantage of the facilities offered by the Bureau of Entomology of the U. S. Department of Agriculture, the Beltsville Research Center, the National Museum, Smithsonian Institution, various other local laboratories, the libraries in Washington, and the Washington Entomological Society. Thus students are given many opportunities of meeting authorities in the various fields of entomology, to observe projects under way, consult collections, and hear addresses on every phase of entomology. Following is the suggested curriculum in entomology:

Curriculum

Sophomore Year	*Semester I*	*II*
Introductory Entomology (Ent. 1f)	3	—
Insect Morphology (Ent. 2s)	—	3
Elements of Organic Chemistry (Chem. 12Ay)	2	2
Elements of Organic Laboratory (Chem. 12By)	1	1
Modern Language (French or German)	3	3
Diseases of Plants (Plt. Path. 1f)	4	—
General Bacteriology (Bact. 1s)	—	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	15	15

Junior Year		
Insect Taxonomy (Ent. 3f)	3	—
Insect Biology (Ent. 5s)	—	3
†Economic Entomology (Ent. 101y)	2	2
Modern Language (French or German)	3	3
General Physics (Phys. 1y)	4	4
Electives	4–5	4–5
	16–17	16–17

Senior Year		
†Insect Pests of Special Groups (Ent. 103f, 104s)	3	3
Seminar (Ent. 112y)	1	1
Special Problems (Ent. 110f and s)	2	2
Electives	10–11	10–11
	16–17	16–17

This curriculum is based on the option of mathematics in the freshman year, which subject should be elected by students electing a major in entomology. Students electing another course will have to make certain changes in the sequence of some of the required courses.

†Courses taken in alternate years by both juniors and seniors.

FARM MANAGEMENT*

The courses in this department are designed to provide fundamental training in the basic economic principles underlying farming. While the curriculum is developed primarily from the viewpoint of farm management, sufficient basic courses in general agricultural economics, marketing, finance, and land economics are included to give the student the foundation needed to meet the production and distribution problems confronting the individual farmer in a progressive rural community.

Farming is a business, as well as a way of life, and as such demands for its successful conduct the use of business methods; the keeping of farm business records, analyzing the farm business, and of organizing and operating the farm as a business enterprise. It requires not only knowledge of many factors involved in the production of crops and animals, but also administrative ability to coordinate them into the most efficient farm organization. Such knowledge enables the student to perceive the just relationship of the several factors of production and distribution as applicable to local conditions, and to develop an executive and administrative capacity.

Students well trained in farm management are in demand for county agent work, farm bureau work, positions with farm organizations and private business concerns, experiment station or United States Government investigation, and college teaching.

Curriculum

	Semester I	Semester II
Sophomore Year		
Expository Writing (Eng. 5f, 6s)	2	2
Elements of College Mathematics (Math. 8f, 10s)	3	3
Fundamentals of Economics (Econ. 57s)	—	3
General Horticulture (Hort. 1f)	3	—
Geology (Geol. 1f)	3	—
Cereal Crop Production (Agron. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	3
General Animal Husbandry (A. H. 2s)	—	2
Poultry Management (P. H. 2s)	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	16	18

*Students electing the Farm Management curriculum must present evidence of having acquired at least one year of practical farm experience.

	Semester I	Semester II
Junior Year		
Farm Economics (A. E. 100f)	3	—
Marketing of Farm Products (A. E. 102s)	—	3
Analysis of the Farm Business (A. E. 107s)	—	3
Feeds and Feeding (A. H. 102f)	3	—
Money and Banking (Fin. 53s)	—	3
Farm Machinery (Agr. Engr. 101f)	3	—
Electives	6	6
	—	—
	15	15
Senior Year		
Cooperation in Agriculture (A. E. 103f)	3	—
Farm Management (A. E. 108f)	3	—
Farm Finance (A. E. 104s)	—	3
Rural Life and Education (R. Ed. 110s)	—	3
Elements of Statistics (Stat. 14f)	3	—
Economic Statistics (Stat. 15s)	—	3
Land Economics (A. E. 111f)	3	—
Prices of Farm Products (A. E. 106s)	—	3
Electives	4	4
	—	—
	16	16

GENETICS AND STATISTICS

Rapid accumulation of knowledge in the field of genetics has changed the viewpoint of those interested in plant and animal breeding and in eugenics.

The Department of Genetics offers students training in the principles of heredity and presents results of the application of these principles in plant and animal improvement.

Statistics

Teachers and investigators have increasing occasion to interpret statistical data presented by others, as well as to gather and organize original materials.

The Department of Statistics offers students training in the tools and methods employed in statistical description, induction, and design.

Curriculum

Sophomore Year		
Survey and Composition II (Eng. 2f, 3s)	3	3
Calculus (Math. 23y)	4	4
German or French	3	3
Electives	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3 y or 6 y and 8 y)	2	2
	—	—
	16	16

	Semester I	Semester II
Junior Year		
Higher Algebra (Math. 141f)	2	—
Advanced Calculus (Math. 143f)	2	—
General Physics (Phys. 1y)	4	4
*Elements of Statistics (Stat. 14f)	3	—
*Economic Statistics (Stat. 15s)	—	3
*Biological Statistics (Stat. 111f)	2	—
*Advanced Biological Statistics (Stat. 112s)	—	2
Electives	3	7
	16	16
Senior Year		
Advanced Plane Analytic Geometry (Math. 145f)	2	—
Theory of Equations (Math. 151f)	2	—
Statistical Design (Stat. 116s)	—	2
Problems (Stat. 120)	—	4
Electives	12	10
	16	16

HORTICULTURE

The State of Maryland and other States offer many excellent opportunities in horticultural industries; large fruit enterprises, producing apples, peaches, strawberries, raspberries, and other fruits for domestic and foreign markets; extensive greenhouse establishments, growing flowers and vegetables; canning and preserving factories in vegetable and fruit areas; nurseries, propagating trees and plants of all kinds; and concentrated farming areas devoted to vegetable production for market and canning. These industries require men with a specialized knowledge of production and marketing phases of the horticultural crops which are produced.

The Department of Horticulture offers instruction in pomology (fruits), olericulture (vegetables), floriculture (flowers), and ornamental gardening to meet the demand for men in the several horticultural industries, and in related work as teachers, county agents, fruit inspectors, and scientific investigators in private and public research laboratories, including special horticultural workers with fertilizer companies, seed companies, machinery companies, and related industries.

Students in horticulture have considerable latitude in the selection of horticultural courses, but usually find it advisable to specialize by electing all of the courses offered in pomology, olericulture, or floriculture, according to the suggested curricula. Students who wish to specialize in landscape architecture will be given an opportunity to secure certain basic courses in the curriculum for ornamental horticulture, but must plan to spend additional time at another institution where a complete landscape curriculum is offered.

* Elect two.

The department is equipped with several greenhouses and a modern horticultural building, with laboratories and cold storage rooms, for horticultural teaching and research. Extensive acreage near the University is devoted to the growing of fruit trees and vegetable crops. An arboretum with many ornamental plants has been started on the University grounds for use in teaching of horticulture and other related subjects.

The suggested curricula will be adjusted to the special needs of students whose interests lie in the general scientific field or those who are preparing for work in technical lines. The object is to fit students most effectively to fill positions of several types.

Curricula

Pomology and Olericulture

	Semester I	Semester II
Sophomore Year		
Diseases of Plants (Plt. Path. 1f)	4	—
Geology (Geol. 1f)	3	—
Fundamentals of Economics (Econ. 57f)	3	—
General Botany (Bot. 3s)	—	4
Introductory Entomology (Ent. 1s)	—	3
Soils and Fertilizers (Soils 1s)	—	3–5
General Horticulture (Hort. 1f, 2s)	3	3
Expository Writing (Eng. 5f, 6s)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	—	—
	17	17–19
Junior Year		
Fruit Production (Hort. 3f, 4s)	2–3	2
Plant Physiology (Plt. Phys. 101f)	4	—
Small Fruits (Hort. 8s)	—	2–3
Vegetable Production (Hort. 5s)	—	2–4
Diseases of Fruits (Plt. Path. 101f) or Diseases of Garden and Field Crops (Plt. Path. 102s)	4 or —	4 or 2
*World Fruits and Nuts (Hort. 106s)	6–10	3–8
Electives	—	—
	16–17	16–18
Senior Year		
Genetics (Gen. 101f)	3	—
Technology of Horticultural Plants (Hort. 101f, 102s; 103f, 104s)	4	4
*Insect Pests of Special Groups (Ent. 103f, 104s)	3	3
Seminar (Hort. 111y)	1	1
Systematic Pomology (Hort. 109f) or Systematic Olericulture (Hort. 110f), or Farm Management (A. E. 108f)	3 or 1	— or 7
Electives	—	—
	15	15

*Courses given in alternate years.

Floriculture and Ornamental Horticulture

Sophomore Year	*Semester* I	*II*
Geology (Geol. 1f)	3	—
Local Flora (Bot. 4s)	—	2
Expository Writing (Eng. 5f, 6s)	2	2
General Horticulture (Hort. 1f)	3	—
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
Elect from the following courses:		
General Botany (Bot. 3s)	—	4
Landscape Gardening (Hort. 11f)	2	—
Plane Surveying (Surv. 2y)	2	3
Engineering Drawing (Dr. 1f)	2	—
Diseases of Plants (Plt. Path. 1f)	4	—
Fundamentals of Economics (Econ. 57s)	—	3
Introductory Entomology (Ent. 1s)	—	3
	—	—
	16	16
Junior Year		
*Garden Flowers (Hort. 9f)	3	—
Soils and Fertilizers (Soils 1s)	—	5
*Plant Materials (Hort. 107y)	3	2
Plant Physiology (Plt. Phys. 101f)	4	—
Elect from the following courses:		
Genetics (Gen. 101f)	3	—
Vegetable Production (Hort. 5s)	—	2
*Greenhouse Management (Hort. 6f, 7s)	3	3–4
*Civic Art (Hort. 14s)	—	2
Landscape Design (Hort. 12f, 13s)	3	3
*Commercial Floriculture (Hort. 10y)	3	4
	—	—
	16	16
Senior Year		
Seminar (Hort. 111y)	1	1
Special Problems (Hort. 112y)	2	2
Technology of Horticultural Plants (Hort. 105f)	2	—
Electives	11	13
	—	—
	16	16

Elect from courses listed for the Sophomore and Junior Years and from other courses† offered in Entomology, Agronomy, Agricultural Engineering, Botany, Economics, Genetics, Statistics, Plant Physiology, Bacteriology, Plant Pathology, Speech, English, Business Administration, Modern Languages, Fine Arts, or Education.

*Courses given only in alternate years.

†Such electives are advised for all students in Horticulture.

POULTRY HUSBANDRY

The curriculum in poultry husbandry is designed to give the student a thorough knowledge of subject matter necessary for poultry raising; the marketing, distribution, and processing of poultry products; poultry improvement work; and as a basis for graduate training for teaching and research in poultry husbandry.

The poultry industry of Maryland ranks second to dairying in economic importance among the agricultural industries of the State. Nearby markets provide a profitable outlet for poultry products of high quality in larger volume than now produced in the State. The necessary quality can be attained by intelligent, trained poultry husbandmen.

The suggested curriculum will be modified to meet the special needs of individual students. For example, most students will be expected to take the courses in Agricultural Industry and Resources and Farm Organization offered in the general curriculum for the freshman year. Superior students, definitely anticipating preparation for a professional career in poultry husbandry, will be expected to take language instead. However, all students concentrating in poultry husbandry will be required to complete 24 semester hours in poultry husbandry.

Curriculum

Sophomore Year		*Semester* I	*II*
Poultry Production (P. H. 1f)		3	—
Poultry Management (P. H. 2s)		—	3
Advanced Public Speaking (Speech 3f, 4s)		2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)		2	2
Elect one of the following:			
Elements of Organic Chemistry (Chem. 12Ay and 12By) Economics (Econ. 57f and A. E. 102s)		3	3
Elect two of the following:			
Elementary Physics (Phys. 3y)	3–3		
Modern Language (French or German)	3–3		
Introductory Entomology and Insect Biology (Ent. 1f, 5s)	3–3	6	6
Agriculture (D. H. 1f or A. H. 2s)	3–2		
or (Agron. 1f, 2s)	3–3		
or (Hort. 1f and 5s)	3–3		
		—	—
		16	16

	Semester I	Semester II
Junior Year		
Poultry Biology (P. H. 3f)	2	—
Poultry Genetics (P. H. 101s)	—	3
Poultry Nutrition (P. H. 102s)	—	2
Poultry Physiology (P. H. 106f)	2	—
General Bacteriology (Bact. 1f)	4	—
Farm Finance (A. E. 104s)	—	3
Genetics (Gen. 101f)	3	—
Elect one of the following:		
General Physiological Chemistry (Chem. 108s) — 4 / Pathogenic Bacteriology (Bact. 2s) — 4	—	4
Economics (Econ. 57f and A. E. 102s) or Electives	3	3–4
Farm Buildings (Agr. Engr. 105f)	2	—
	16	15–16
Senior Year		
Poultry Products (P. H. 104f, 105s) 2–2 / Poultry Hygiene (V. S. 107s) —2 / Poultry Industrial and Economic Problems (P. H. 107f) 2— / Commercial Poultry Management (P. H. 108s) —2		
Biological Statistics (Stat. 111f)	2	—
Advanced Biological Statistics (Stat. 112s)	—	2
Rural Sociology (Soc. 102f)	3	—
Preservation of Poultry Products (Bact. 108s)	—	2
Electives	7	6
	16	16

SPECIAL STUDENTS IN AGRICULTURE

Mature students who are not candidates for degrees may, with consent of the dean, register as special students and pursue a program of studies not included in any regular curriculum, but arranged to meet the needs of the individual. In case such persons have not fulfilled the regular college entrance requirements, they may arrange to audit (to attend without "credit") certain of the agricultural classes. All university fees for these special students are the same as fees for regular students.

There are many young farmers who desire to take short intensive courses in their special lines of work during slack times on the farm. Arrangements have been made to permit such persons to register at the office of the Dean of the College of Agriculture and receive cards granting them permission to visit classes and work in the laboratories of the different departments. This opportunity is created to aid florists, poultrymen, fruitgrowers, gardeners, or other especially interested persons who are able to get away from their work at some time during the year.

The regular charges are *$5.00 for registration and $1.50 per credit hour per month for the time of attendance.

*One registration is good for any amount of regular or intermittent attendance during a period of four years.

AGRICULTURAL EXPERIMENT STATION

The Agricultural Experiment Station is the research agency of the University, dealing with problems related to agriculture. Support for research is provided by both State and Federal appropriations. The Federal Acts are as follows: Hatch Act, 1887; Adams Act, 1906; Purnell Act, 1925; and Bankhead-Jones Act, 1935.

The Hatch Act established State Experiment Stations and defined the scope and type of original researches that might be undertaken. In general, the work done under the Hatch and Adams funds pertains to the physical and biological sciences and promotes a better understanding of plants and animals. The Purnell Act bears more directly upon investigations and experiments having to do with manufacture, preparation, use, distribution, and marketing of agricultural products. Its funds may be used also for such economic and sociological investigations as have for their purpose the development and improvement of rural homes and rural life. Work under Bankhead-Jones funds must have a bearing upon new and improved methods of production and distribution, new and extended use and markets for agricultural commodities and by-products and manufactures thereof, and research relating to conservation, development, and use of land and water resources for agricultural purposes.

In addition to work conducted at the University, the Station operates an experimental farm of 50 acres at Ridgely for canning crops and grain farming, a farm of 60 acres at Upper Marlboro for tobacco investigations, and a farm of 234 acres near Ellicott City for livestock. Regional tests and experiments are conducted in cooperation with farmers at many different points in the State. Most of these cooperative experiments deal with crops, soils, fertilizers, orchards and insect and plant disease control, and serve as checks upon the more detailed and fundamental work done at the main Station.

EXTENSION SERVICE

The Extension Service of the University of Maryland was established by State and Federal laws, and is designed to assist farmers and their families in promoting the prosperity and welfare of agriculture and rural life. Its work is conducted in cooperation with the United States Department of Agriculture.

The Extension Service is represented in each county of the State by a county agent and a home demonstration agent. Through these agents and its staff of specialists, it comes into intimate contact with rural people and with problems of the farm and home.

Practically every phase of agriculture and rural home life comes within the scope of extension work. Farmers are supplied with details of crop and livestock production, and with instructions for controlling diseases and insect pests; they are encouraged and aided in organized efforts, helped with marketing problems and assisted in improving economic conditions

on the farm. Rural women are assisted likewise in problems of the home and with such information as tends to make rural home life attractive and satisfying. The 4-H Club work for rural boys and girls provides a valuable type of instruction in agriculture and home economics, and affords a real opportunity to develop self-confidence, perseverance, and leadership.

The Extension Service works in accord with all other branches of the University and with all agencies of the United States Department of Agriculture. It is charged with carrying out in Maryland the program of the Agricultural Adjustment Administration. It cooperates with all farm and community organizations in the State which have as their major object the improvement of agriculture and rural life; and it aids in making effective the regulatory and other measures instituted by the State Board of Agriculture.

REGULATORY ACTIVITIES

Regulatory services carried on under the supervision of members of the faculty and staff of the College of Agriculture have as their general aim the reduction of loss caused by insect pests and diseases of animals and plants, protection of human health by guarding against communicable diseases of livestock and unwholesome products, improvement in quality of farm products, and maintenance of guaranteed quality in seeds, feeds, fertilizers, and limes. These services are carried on in accordance with laws and regulations under which they were established. Actual enforcement is involved in some activities, while in others the work is primarily or entirely educational.

Agencies engaged in various forms of regulatory activities include the Livestock Sanitary Service, State Horticultural Department, State Department of Markets, State Seed Service, and State Department of Forestry. Operating under the State Chemist at the University, there is also the enforcement of regulations pertaining to fertilizers, limes, and feeds.

These agencies are at work constantly in efforts to control and eradicate, when possible, any serious pests and diseases of animals, of crops of all kinds, of shade trees, of ornamental plants, and of forest trees. They are ever on the alert to prevent introduction of pests and diseases into the State and execute the laws and regulations with respect to shipping animals, plants, and other products into and out of Maryland. They deal with such problems as control and eradication of tuberculosis and Bang's disease of cattle, Japanese beetle, and white pine blister rust.

By inspection and certification of seeds and farm products and through demonstrations of recognized grades and standards, they contribute to improvement in quality and marketing conditions.

COLLEGE OF ARTS AND SCIENCES

L. B. BROUGHTON, *Dean.*

The College of Arts and Sciences provides four years of liberal training in the biological sciences, in economics, history, languages and literatures, mathematics, philosophy, the physical sciences, political science, psychology, and sociology. It thus affords an opportunity to acquire a general education which will serve as a foundation for whatever profession or vocation the student may choose. In particular, it lays the foundation for the professions of dentistry, law, medicine, nursing, teaching, and theology, and the more technical professions of engineering, public health service, public administration, and business. The College of Arts and Sciences offers to the students of the other colleges of the University training in fundamental subjects, both classical and scientific, which should permit them to acquire the perspective necessary for liberal culture and public service.

Divisions

The College of Arts and Sciences is divided into one Lower Division and four Upper Divisions. Under the latter are grouped the following departments:

A. The Division of Biological Sciences: Bacteriology, Botany, Entomology, Genetics, and Zoology.

B. The Division of Humanities: Art, Classical Languages and Literatures, Comparative Literature, English Literature and Philology, Modern Languages and Literatures, Music, Philosophy, and Speech.

C. The Division of Physical Sciences: Astronomy, Chemistry, Geology, Mathematics, Physics, and Statistics.

D. The Division of Social Sciences: Economics, History, Political Science, Psychology, and Sociology.

The work of the first and second years in the College of Arts and Sciences is taken in the Lower Division. It is designed to give the student a basic general education, and to prepare him for specialization in the junior and senior years.

The Upper Divisions direct the courses of study of students doing their major work in the College of Arts and Sciences during their junior and senior years, and designate general requirements, the fulfillment of which is necessary to qualify a student for admission to major work in an Upper Division.

Requirements for Admission

The requirements for admission to the College of Arts and Sciences are, in general, the same as those for admission to the other colleges and schools of the University. See Section I, Admissions, page 50.

For admission to the premedical curriculum, two years of any one foreign language are required. A detailed statement of the requirements for admission to the School of Medicine and the relation of these to the premedical curriculum will be found under the heading *School of Medicine.* See page 218.

Degrees

The degrees conferred upon students who have met the requirements prescribed in the College of Arts and Sciences are Bachelor of Arts and Bachelor of Science.

Students of this college who have completed the regular course in either the Division of Humanities or the Division of Social Sciences are awarded the degree of Bachelor of Arts. Any student who has met the requirements for the degree of Bachelor of Science is awarded that degree, provided the major portion of the work has been done in the field of science, and the application has the approval of the science department in which the major work has been carried.

Students who have elected the combined program of Arts and Sciences and Medicine may be granted the degree of Bachelor of Science after the completion of at least three years of work in this college and the first year of the School of Medicine.

Those electing the combined five-year Academic and Nursing curriculum, for which the degree of Bachelor of Science in Nursing may be awarded upon the completion of the full course, must take the prenursing curriculum at College Park before the Nursing Course in Baltimore.

Those taking the combined course in Arts and Law may be awarded the Bachelor of Arts degree after the completion of three years of the work of this college and one year of the full-time law course, or its equivalent, in the School of Law.

Residence

The last thirty credits of any curriculum leading to a baccalaureate degree in the College of Arts and Sciences must be taken in residence in this University.

Requirements for Degrees

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied the following requirements:

1. University Requirements.
2. College of Arts and Sciences Requirements.
3. Major and Minor Requirements.
4. Special Upper Division Requirements.

1. *University Requirements*—See page 56.

2. *College of Arts and Sciences Requirements*—A minimum of 120 credits must be acquired, not including the six credits of basic military science required of all able-bodied men students, or the six credits of physical education for women and for such men as are excused from military science.

A student must acquire at least 58 credits, exclusive of military science and physical education, with an average grade of at least C in the Lower Division, before being admitted to an Upper Division.

The following minimum requirements should be fulfilled, as far as possible, before the beginning of the junior year and must be completed before graduation:

I. English and Speech—fourteen credits. Of these, Survey and Composition I (Eng. 1y) and Reading and Speaking (Speech 1y) are required.

II. Foreign Languages and Literatures—twelve credits of one language.

III. Social Sciences—twelve credits. This requirement is fulfilled by electing courses in Economics, History, Political Science, Psychology, and Sociology.

IV. Natural Sciences and Mathematics—twelve credits. Of these one year must be in natural science.

V. Military Science or Physical Education—six credits.

3. *Major and Minor Requirements*—At the beginning of the junior year each student must select a major in one of the fields of study of an Upper Division, and before graduation must complete a major and a minor. The courses constituting the major and the minor selected must conform to the requirements of the department in which the major work is done.

Before beginning a major or a minor the student should have acquired twelve credits in fundamental courses in the field chosen, or in a closely related field satisfactory to the Division, with an average grade of at least C, before credit will be allowed toward completion of the major or minor requirements.

A major shall consist of not fewer than 20 nor more than 36 credits, in addition to the 12 credits required in the Lower Division, in one of the fields of study. Of these credits at least 8 must be acquired in courses listed for advanced undergraduates and graduates.

A minor shall consist of not fewer than 12 nor more than 20 credits, in addition to the 12 credits required in the Lower Division, in some field of study other than the major. At least 6 of these must be acquired in courses listed for advanced undergraduates and graduates.

Not more than 15 credits may be acquired in any field of study other than the major or minor during the last two years, in addition to those which meet the College of Arts and Sciences requirements.

The average grade of the work taken in the major and minor fields must be at least C. A general average of at least C is required for graduation.

4. *Special Upper Division Requirements—*

A. Division of Biological Sciences. See page 112.

B. Division of Humanities. See page 117.

C. Division of Physical Sciences. See page 119.

D. Division of Social Sciences. See page 126.

Certification of High School Teachers

If courses are properly chosen in the field of education, a prospective high school teacher can prepare for high school positions, with major and minor in any of the Upper Divisions of this College.

The College of Education requires that at least twenty credits must be acquired in educational subjects before one can be certified for high school teaching.

Electives in Other Colleges and Schools

A limited number of courses may be counted for credit in the College of Arts and Sciences for work done in other colleges and schools of the University.

The number of credits which may be accepted from the various colleges and schools is as follows:

College of Agriculture—Fifteen.

College of Commerce—Fifteen.

College of Education—Twenty.

College of Engineering—Fifteen.

College of Home Economics—Fifteen.

School of Law—In the combined program the first year of law must be completed.

School of Medicine—In the combined program the first year of medicine must be completed.

School of Nursing—In the combined program the three years of nursing must be completed.

Normal Load

The normal load for the freshman in this college is sixteen credits per semester, including one hour of basic military science or physical education.

The normal load for the sophomore year is seventeen credits per semester, two of which are in military science or physical education.

The normal load in the junior and senior years is 15 credits per semester. With the permission of the Dean of the College of Arts and Sciences and

the Chairman of the Division, this load may be increased to 17, a maximum except for honor students. The load of honor students shall lie within the discretion of the Dean and the Chairman of the Division, but in no case shall it exceed 19 credits per semester.

Advisers

Freshmen and sophomores in this college shall consider the Dean of the College and the Chairman of the Lower Division their advisers.

On entrance to the University each student of the College of Arts and Sciences is assigned to a member of the faculty of the College, who serves as his special adviser. The student should consult his adviser on all matters of his university life in which he may need advice.

Juniors and seniors must consider the chairmen of their major departments their advisers, and shall consult them about the arrangements of their schedules of courses and any other matters in which they may desire advice.

THE LOWER DIVISION

CHARLES E. WHITE, *Chairman.*

The work of the first two years in the College of Arts and Sciences is designed to give the student a basic general education, and to prepare him for specialization in the junior and senior years.

It is the student's responsibility to develop in these earlier years such proficiency in basic subjects as may be necessary for his admission into one of the Upper Divisions of the College. Personal aptitude and a general scholastic ability must also be demonstrated, if permission to pursue a major study is to be obtained.

Suggested courses of study for the freshman and sophomore years are given under certain of the Upper Divisions. The student should follow the curriculum for which he is believed to be best fitted. It will be noted that there is a great deal of similarity in these outlines for the first two years, and a student need not consider himself attached to any particular Upper Division until the beginning of his junior year, at which time it is necessary to select a major.

The Requirements of the College of Arts and Sciences for graduation as outlined on page 106, should be completed as far as possible in the Lower Division.

TYPICAL FRESHMAN PROGRAM

	Semester I	II
Required:		
*Survey and Composition I (Eng. 1y)	3	3
Foreign Language (French, German, Spanish, Latin, Greek, Italian)	3	3
Science (Botany, Chemistry, Physics, Zoology)	3 or 4	3 or 4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
Elect from the following so that the total credits each semester are 16 or 17:		
A Survey of Western Civilization (H. 1y)	3	3
History of England and Great Britain (H. 3y)	3	3
Mathematics (Math. 8f, 10s; 21f, 22s)	3 or 4	3 or 4
Economic Geography (T. and T. 1f)	3	—
Development of Commerce and Industry (T. and T. 4s)	—	3
American National Government (Pol. Sci. 1f and s)	3	or 3

*A placement test is given during Registration Week to determine whether the student is adequately prepared for Eng. 1y. A student failing this test is required to take Eng. A, a one-semester course, without credit. After five weeks, he may be transferred from Eng. A to Eng. 1y, for which he will receive full credit, or from Eng. 1y to Eng. A, according to his demonstrated ability.

	Semester I	II
State and Local Government (Pol. Sci. 4s)	—	3
Comparative Government (Pol. Sci. 8s)	—	2
Reading and Speaking (Speech 1y)	1	1
Greek Poetry (Comp. Lit. 1f)	2	—
Later European Epic Poetry (Comp. Lit. 2s)	—	2
Library Methods (L. S. 1f and s)	1	or 1
Art (Art 1f, 3f, 2s, 4s)	2	2
Music (Mus. 1y, 2y, 3y, 4y, 5y)	½ to 2	½ to 2
Mechanical Drawing (Dr. 6y)	1	1
	—	—
	16–17	16–17

TYPICAL SOPHOMORE PROGRAM

Survey and Composition II (Eng. 2f, 3s)	3	3
Foreign Language	3	3
General Electives from the College of Arts and Sciences fulfilling, as far as possible, the specific requirements of the College of Arts and Sciences	9–10	9–10
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	—	—
	17–18	17–18

A—DIVISION OF BIOLOGICAL SCIENCES

L. H. JAMES, *Chairman.*

The Division of Biological Sciences is organized to stimulate close coordination between all activities in the field of biology. The Division includes the Departments of Bacteriology, Botany, Entomology, Genetics, and Zoology.

Each department within the Division has one or more established curricula. To meet the demands for technically trained workers in the biological sciences these curricula are designed to give specialized training, particularly during the last two years of college work. They provide, more specifically, the basic knowledge and experience required for (1) teaching in secondary schools; (2) research and regulatory work in federal, state, and municipal departments and bureaus; (3) admission to graduate study in the preparation for college teaching and advanced research; and (4) entrance to the professional schools of medicine, dentistry, and nursing.

Instruction

Alliance of the biological sciences presents an opportunity for the pursuit of a well coordinated program of study. Completion of a suggested undergraduate curriculum under any one of the departments fulfills the requirements for the degree of Bachelor of Science. Advanced work also is presented in each of the biological sciences for the degrees of Master of Science and Doctor of Philosophy.

Although the undergraduate training in any Department of the Division is both thorough and well-balanced, nevertheless, one or more years of postgraduate instruction and experience and the attainment of an advanced degree are desirable in preparation for the larger opportunities that arise in this rapidly expanding field. The need for workers in the fields of agriculture, home economics, industry, public health, etc., presents almost unlimited opportunities for specialization and has made it necessary to correlate closely the undergraduate courses in this Division with those offered in the Graduate School in order to equip the advanced student adequately in his own work and in related fields.

A special curriculum in General Biological Science is presented primarily for those interested in teaching biological science or general science in elementary and high schools. Students in the pre-professional schools who expect to complete their work for the degree of Bachelor of Science may, in following the pre-professional curriculum, complete a major in certain departments of the Division of Biological Sciences by the proper selection of courses.

The particular professions and lines of work for which each department in this Division prepares its students are outlined in greater detail under the description of each department.

Requirements for Graduation

1. *University Requirements.* See page 56.
2. *College of Arts and Sciences Requirements.* See page 107.
3. *Physical Sciences*—Ten semester hours in addition to the twelve required by the College of Arts and Sciences, the total to include basic courses in chemistry, physics, and mathematics.

Fields of Study

The curriculum outlined in each field of study represents the courses which, in the judgment of the Department and Division, are necessary for an adequate training in the particular subject. In most curricula enough electives are included to give the student ample opportunity to study subjects outside his major or minor departments in which he may have become interested or in which further training is desired.

Bacteriology

The courses in this Department prepare students for such positions as dairy, sanitary, food, and soil bacteriologists in federal, state, and municipal departments and for public health, research, and industrial positions. The suggested curriculum is given on page 91.

Botany

The Department of Botany offers three major fields of work: General Botany and Morphology, Plant Pathology, and Plant Physiology and Ecology. For further information and the suggested curricula see page 93.

Entomology

The Department of Entomology is equipped to furnish general courses for students of biology and other subjects in the College of Arts and Sciences as well as to train students for careers in research, teaching, or control work in the field of professional Entomology.

Two courses offered by the Department, Ent. 1 and Ent. 5s, have been organized particularly to meet the needs of students in the College of Arts and Sciences. Several other courses will serve to strengthen the program of students with a major in the biological sciences. In view of the fact that nearly 80% of all known species of animals in the world are insects, it is essential that the students of biology elect some work in entomology. The suggested curriculum is given on page 94.

Genetics

The courses in Genetics are designed to provide training in the principles of heredity and genetics for those interested in plant and animal breeding and in eugenics. The suggested curriculum is given on page 97.

Zoology

The Zoology Department offers courses designed to train students for teaching and for service in the biological bureaus of the United States Government and in the biological departments of the various states. Emphasis is placed on morphology, physiology, and marine biology. Instruction and opportunities for original investigation in the latter are supplemented by the research facilities and courses of instruction offered at the Chesapeake Biological Laboratory, a description of which is found on page 379.

Curriculum

	Semester I	Semester II
Freshman Year		
Fundamentals of Zoology (Zool. 3y)	4	4
General Chemistry (Chem. 1y)	4	4
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
Modern Language (French or German)	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	16	16
Sophomore Year		
Comparative Vertebrate Morphology (Zool. 4f)	3	—
Vertebrate Embryology (Zool. 20s)	—	3
General Botany (Bot. 1f) or General Bacteriology (Bact. 1f)	4	—
General Bacteriology (Bact. 1s) or Pathogenic Bacteriology (Bact. 2s)	—	4
Survey and Composition II (Eng. 2f, 3s)	3	3
Modern Language (French or German)	3	3
Elements of College Mathematics (Math. 8f, 10s)	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	18

	Semester I	Semester II
Junior Year		
Animal Ecology (Zool. 121f)	3	—
Animal Genetics (Zool. 120s)	—	3
General Physics (Phys. 1y)	4	4
Electives (Zoology)	3	3
Electives	5	5
	15	15
Senior Year		
Journal Club (Zool. 106y)	1	1
General Animal Physiology (Zool. 103y)	3	3
Electives	11	11
	15	15

General Biological Sciences

A curriculum has been prepared for students who are interested in biology but whose interests are not centralized in any one of the biological sciences. The courses as outlined familiarize the student with the general principles and methods of each of the biological sciences.

By the proper selection of courses during the junior and senior years a student may concentrate his work sufficiently in any one of the fields of study to be able to continue in graduate work in that field. Also by a proper selection of electives, the educational requirements of the State Department of Education for certification can be met.

Requirements

A major in general biological sciences shall consist of not fewer than 40 credits in the biological sciences, of which no fewer than 14 credits must be acquired in courses for advanced undergraduates and graduates.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Modern Language (French or German)	3	3
Reading and Speaking (Speech 1y)	1	1
General Chemistry (Chem. 1y)	4	4
General Botany (Bot. 1f)	4	—
General Zoology (Zool. 1s)	—	4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	16	16

Sophomore Year	*Semester I*	*II*
Survey and Composition II (Eng. 2f, 3s)	3	3
Elements of College Mathematics (Math. 8f, 10s)	3	3
Modern Language (French or German)	3	3
Introductory Entomology (Ent. 1f)	3	—
General Bacteriology (Bact. 1s)	—	4
Electives	4	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	18
Junior Year		
General Physics (Phys. 1y)	4	4
Electives (Social Sciences)	3	3
Electives (Biological Sciences)	6	6
Electives	3	3
	16	16
Senior Year		
Electives (Social Sciences)	3	3
Electives (Biological Sciences)	6	7
Electives	6	5
	15	15

B—THE DIVISION OF HUMANITIES

ADOLF E. ZUCKER, *Chairman*

The Division of Humanities is composed of the Departments of Art, Classical Languages, Comparative Literature, English Language and Literature, Modern Languages and Literatures, Music, Philosophy, and Speech.

This Division has two main functions: (1) to provide for its own major students a thorough training in literature, philosophy, languages, and the fine arts; (2) to furnish for students in other Divisions, especially for those taking preprofessional work, background and elective studies in the departments of the Division.

At present, the Division offers major and minor work for the Master of Arts and the Doctor of Philosophy degrees in English Language and Literature and in Modern Languages and Literatures; major work for the Master of Arts may be elected in Comparative Literature and General Linguistics, and minor work in Philosophy. Detailed requirements for these degrees are given under the departmental announcements and in the catalogue of the Graduate School.

Training for the Master of Arts degree is directed especially toward acquainting the candidate with methods of research and the literature in his own fields. For the degree of Doctor of Philosophy, the candidate is required not only to be thoroughly acquainted with his major and minor fields and with the scholarly accomplishments therein, but also to devote himself intensively to a specific research problem in which he shall make an original contribution to human knowledge.

Division Requirements for the Bachelor's Degree

The following requirements in addition to those of the College of Arts and Sciences (including a general average of C—see page 107) should be completed, as far as possible, before the beginning of the junior year.

1. *Library Science*—one credit.
2. *English* 2*f*, 3*s*—six credits.
3. *Modern Language*—To be accepted unconditionally in the Division of Humanities, a student must have attained a reading knowledge of at least one foreign language. In satisfaction of this requirement, he must pass one of the general language examinations, which are given during the first and last days of each semester, with a grade as high as C. Maryland students should take the examination not later than the close of the sophomore year or the beginning of the junior year. Transfer students should take the examination upon entrance. The student must show in this examination that he has attained the

reading ability to be expected after two years of a college language course. When the student has passed the general language examination, he will have satisfied the language requirements; but in no case will a student in the Division be graduated who has not acquired at least 12 credits of one foreign language in college.

4. *Philosophy*—three credits.

5. *Psychology*—three credits.

6. *Major and Minor Requirements*—In selecting a major or a minor, a student must have acquired twelve credits in fundamental courses in the field chosen, or in a closely related field satisfactory to the Division, with an average grade of at least C, before credit will be allowed toward the completion of the major or minor requirements. In addition:

 A major shall consist of not fewer than 20 nor more than 36 credits, in addition to the 12 credits required in the Lower Division, in one of these fields of study. At least 16 of these credits must be taken in courses listed for advanced undergraduates and graduates.

 A minor shall consist of not fewer than 12 nor more than 20 credits, in addition to the 12 credits required in the Lower Division, in one of the above fields of study not selected for the major, or in some other field of study authorized in the College of Arts and Sciences. At least 9 of these credits must be taken in courses listed for advanced undergraduates and graduates.

The student must acquire at least 30 credits in courses not included in the major or minor.

For additional requirements for major students, see the departmental announcements under English (page 314) and Modern Languages (page 344).

MAJOR AND MINOR

Fields of Study

Comparative Literature
English
French
**General Linguistics
German
*Greek
Latin
*Philosophy
*Speech
Spanish

*Not available at present for a major.
**Major only for Master of Arts Degree.

THE DIVISION OF PHYSICAL SCIENCES

WILBERT J. HUFF, *Chairman*

The Division of Physical Sciences is composed of the department of Astronomy, Chemistry, Geology, Mathematics, Physics, and Statistics. On the following pages the division outlines a number of curricula, each requiring four years for completion, leading to the degrees of Bachelor of Science or Bachelor of Arts together with five year programs in Chemistry-Chemical Engineering and Applied Physics. The departments of study have developed courses to contribute to the liberal education of students not primarily interested in science; to provide the basic knowledge of the physical sciences necessary for so many professions such as agriculture, dentistry, engineering, home economics, medicine, pharmacy, and others; to equip teachers of the Physical Sciences for secondary schools and colleges; and to train students for professional service as chemists, chemical engineers, geologists, mathematicians, physicists, and statisticians, and to prepare for graduate study and research in the Physical Sciences.

The fields of knowledge represented by the Physical Sciences are so vast and their applications are so important that it is impossible to deal adequately with any one in a four-year undergraduate curriculum. Students who aspire to proficiency are therefore encouraged to continue their studies in the graduate years. In the work leading to a Master's degree, the student becomes acquainted with the general aspects of the field. In partial fulfillment of the requirements for the degree of Doctor of Philosophy, the student must demonstrate a command of his chosen field sufficiently great to permit him to make independent investigations and creative contributions.

No degree will be granted to a student in any department of Physical Sciences whose general average in all courses offered for the degree is below C. To enroll in the Division of Physical Sciences, at the beginning of the junior year a student must select a major in one of the departments and before graduation must complete a major and a cognate minor selected to conform to the requirements of the department in which the major work is done.

The candidate for a baccalaureate degree in the College of Arts and Sciences will be governed by the requirements for that degree established by the University and the College, including the major and minor requirements, except the candidate who offers the curriculum in General Physical Science, for whom special requirements are stated below.

For the University requirements see page 56.

For the College of Arts requirements and major and minor requirements see page 107.

Detailed description of the undergraduate and graduate courses offered in this Division is given in Section III of this catalogue, Description of Courses.

Chemistry

The Department of Chemistry includes Agricultural, Analytical, Inorganic, Organic, and Physical Chemistry, together with the State Control Work. The following curriculum prepares students to enter the fields of General Chemistry, Biological Chemistry, and Agricultural Chemistry. For Industrial Chemistry, it is recommended that the student elect the combined Chemical Engineering-Chemistry curriculum as outlined on page 171.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Modern Language (French or German)	3	3
College Algebra and Analytic Geometry (Math. 21f, 22s)	4	4
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (Speech 1y)	1	1
Mechanical Drawing (Dr. 6y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17
Sophomore Year		
Expository Writing (Eng. 5f, 6s)	2	2
Modern Language (French or German)	3	3
Calculus (Math. 23y)	4	4
Qualitative Analysis (Chem. 2y)	3	3
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elementary Organic Laboratory (Chem. 8By)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	18
Junior Year		
Quantitative Analysis (Chem. 6y)	4	4
Advanced Organic Chemistry (Chem. 116y)	2	2
Organic Laboratory (Chem. 117y)	1	1
General Physics (Phys. 2y)	5	5
Electives (Social Sciences)	3	3
	15	15
Senior Year		
Physical Chemistry (Chem. 102Ay)	3	3
Physical Chemistry Laboratory (Chem. 102By)	2	2
Advanced Organic Laboratory (Chem. 118y)	1	1
English Language or Literature	2	—
Electives (Six must be in Social Science)	7	9
	15	15

Chemical Engineering—Chemistry

A five-year program in Chemical Engineering and Chemistry has been arranged between the College of Engineering and the College of Arts and Sciences which permits students who so desire to become candidates for the degree of Bachelor of Science and Bachelor of Science in Engineering. This curriculum is outlined on page 171.

MATHEMATICS

The Mathematics curriculum is designed for students who desire a thorough training in the fundamentals of Mathematics in preparation for teaching, research, or graduate work in Mathematics. Outstanding students in Mathematics may be awarded the honors degree in Mathematics. For further details see page 336 of this catalogue.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Modern Language (French or German)	3	3
College Algebra and Analytic Geometry (Math. 21f, 22s)	4	4
Reading and Speaking (Speech 1y)	1	1
General Chemistry (Chem. 1y)	4	4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	16	16
Sophomore Year		
Survey and Composition II (Eng. 2f, 3s)	3	3
Modern Language (French or German)	3	3
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17
Junior Year		
Higher Algebra (Math. 141f, 142s)	2	2
Physical Chemistry (Chem. 102Ay)	3	3
Mathematical Physics (Phys. 111f, 112s)	3	3
Pictorial Geometry (Math. 18y)	2	2
Elective (Social Sciences)	3	3
Advanced Differential Equations (Math. 153f)	2	—
Topics in Analysis (Math. 154s)	—	2
	15	15

Senior Year	Semester I	II
Analytic Mechanics (Math. 130f, 131s)	2	2
Advanced Calculus (Math. 143f, 144s)	2	2
Theory of Equations (Math. 151f)	2	—
Undergraduate Seminar (Math. 140y)	2	2
Electron Physics (Phys. 109y)	3	3
Electives (Including 6 credits in Social Sciences)	4	6
	15	15

Physics

Two curricula are offered in Physics, (1) the General Physics curriculum for students who desire a thorough training in the fundamentals of Physics in preparation for graduate work, research, and the teaching of Physics, (2) the Applied Physics curriculum for students who desire to train for industrial and applied physical research. The latter is intended to prepare students for positions in governmental laboratories and in the laboratories established by many industries for testing, research, and development through the application of physical principles and tools.

The completion of the first four years of the latter curriculum leads to the degree of Bachelor of Science in Physics; the completion of the five years with a satisfactory thesis to that of Master of Science in Physics.

Curriculum I—General Physics

Freshman Year	Semester I	II
Survey and Composition I (Eng. 1y)	3	3
Modern Language (French or German)	3	3
College Algebra and Analytic Geometry (Math. 21f, 22s)	4	4
General Chemistry (Chem. 1y)	4	4
Mechanical Drawing (Dr. 6y)	1	1
Reading and Speaking (Speech 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17
Sophomore Year		
Survey and Composition II (Eng. 2f, 3s)	3	3
Modern Language (French or German)	3	3
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17

Junior Year	Semester I	II
Advanced Mathematics	2	2
Advanced Physics	6	6
Elective (Chemistry)	3	3
Electives	4	4
	15	15
Senior Year		
Physical Chemistry (Chem. 102Ay)	3	3
Physical Chemistry Laboratory (Chem. 102By)	2	2
Advanced Physics	6	6
Electives	4	4
	15	15

Curriculum II—Applied Physics

Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
Elementary German (German 1y)	3	3
College Algebra and Analytic Geometry (Math. 21f, 22s)	4	4
General Chemistry (Chem. 1y)	4	4
Mechanical Drawing (Dr. 6y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17
Sophomore Year		
Survey and Composition II (Eng. 2f, 3s)	3	3
Second Year German (German 3y)	3	3
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17

	Semester	
Junior Year	*I*	*II*
Electives (Social Sciences)	3	3
Differential Equations for Engineers (Math. 114f)	3	—
Statics and Dynamics (Mech. 1s)	—	3
Thermodynamics (M. E. 101f)	3	—
Elements of Plane Surveying (Surv. 1f)	1	—
Precision of Measurements (Phys. 101f)	3	—
Electricity (Phys. 108y)	3	3
Optics (Phys. 107s)	—	3
Quantitative Analysis (Chem. 4s)	—	4
	—	—
	16	16
Senior Year		
Electives (Social Sciences)	3	3
Strength of Materials (Mech. 102f)	4	—
Principles of Electrical Engineering (E. E. 101s)	—	3
Physical Chemistry (Chem. 102Ay)	3	3
Heat (Phys. 105f)	3	—
Hydraulics (C. E. 102s)	—	3
Elective (Physics)	3	3
	—	—
	16	15
Fifth Year		
Electives (Engineering)	3	3
Electives (Physics)	6	6
Electives	3	3
	—	—
	12	12

Statistics

The courses in Statistics are intended to provide training in the tools and methods employed in statistical description and induction, in the interpretation of statistical data presented by others, and in the gathering and organization of original data. The suggested curriculum is given on page 97.

General Physical Sciences

For students who desire a general basic knowledge of the physical sciences without immediate specialization in any one, a general curriculum is offered. By proper selection of courses in the junior and senior year a student may concentrate his work sufficiently in any one of the fields of study to be able to continue in graduate work in that field.

A major in the Physical Sciences shall consist of not less than 52 credits in the departments comprising the Division, of which at least 6

shall be acquired in courses listed for advanced undergraduates and graduates in one particular field. At least two courses of not less than three credit hours each in a field cognate to the just-mentioned particular field will be required, and one of these shall be among those listed for advanced undergraduates and graduates.

Curriculum

	Semester	
Freshman Year	*I*	*II*
Survey and Composition (Eng. 1y)	3	3
Modern Language (French or German)	3	3
College Algebra and Analytic Geometry (Math. 21f, 22s)	4	4
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (Speech 1y)	1	1
Mechanical Drawing (Dr. 6y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	—	—
	17	17
Sophomore Year		
Survey and Composition II (Eng. 2f, 3s)	3	3
Modern Language (French or German)	3	3
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	—	—
	17	17
Junior Year		
Electives (Chem. 2y; 8Ay and 8By)	3–4	3–4
Electives (Social Sciences)	3	3
Electives (Math., Stst., Hist., Philos., Physics, Logic)	2–3	2–3
Electives (Biological Sciences)	4	4
Electives	1–3	1–3
	—	—
	15	15
Senior Year		
Electives (Social Sciences)	3	3
Electives	12	12
	—	—
	15	15

D—THE DIVISION OF SOCIAL SCIENCES

J. G. JENKINS, *Chairman*

The Division of Social Sciences includes the departments of Economics, History, Political Science, Psychology, and Sociology.

In addition to supplying such courses as are required by other divisions and other colleges of the University, the departments in the Division of Social Sciences offer opportunities for advanced training in the several fields represented. A major in Economics is available for students in the College of Arts and Sciences. During the freshman and sophomore years, in addition to the College of Arts and Sciences requirements, Principles of Economics (Econ. 51y) should be completed and as many other lower division social science courses taken as practicable. The Department of Political Science offers the first three years of a combined Arts-Law course and also offers training in the field of public administration. The Department of Psychology is identified with the development of applied psychology and is in position to supply training in the industrial and clinical phases of the subject. The Department of Sociology provides a course of study preparatory to professional training in social work and offers the courses demanded by civil service examinations for certain positions. All five departments present courses aligned with the teacher-training program represented in the Arts-Education curriculum.

All of the departments offer graduate instruction leading to the degrees Master of Arts and Doctor of Philosophy. These advanced degrees are increasingly required for secondary school teaching and for professional positions in the several fields represented.

Requirements for Graduation

1. *University requirements*, see page 56.
2. *College of Arts and Sciences requirements*, see page 107.
3. *Major and Minor requirements*, see page 107.

Major and Minor Fields of Study

Economics
History
Political Science
Psychology
Sociology

Combined Program in Arts and Law

The School of Law of the University requires two years of academic credit for admission to the school, or sixty semester hours of college credit.

The University also offers a combined program in Arts and Law, leading to the degrees of Bachelor of Arts and Bachelor of Laws. Students pursuing this combined program will spend the first three years in the College of Arts and Sciences at College Park. During this period they will complete the prescribed curriculum in prelegal studies as outlined below, and they must complete the Requirements for Graduation, as indicated on page 107. If students enter the combined program with advanced standing, at least

the third full year's work must be completed in residence at College Park. Upon the successful completion of one year of full-time law courses in the School of Law in Baltimore, the degree of Bachelor of Arts may be awarded on the recommendation of the Dean of the School of Law. The degree of Bachelor of Laws will be awarded upon the completion of the combined program.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Science or Mathematics	3	3
History of England and Great Britain (H. 3y)	3	3
American National Government (Pol. Sci. 1f)	3	—
State and Local Government (Pol. Sci. 4s)	—	3
Foreign Language	3	3
Reading and Speaking (Speech 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17
Sophomore Year		
English	3	3
Science or Mathematics	3	3
Principles of Economics (Econ. 51y)	3	3
American History (H. 2y)	3	3
Foreign Language	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17
Junior Year		
Introduction to Psychology (Psych. 1f)	3	—
Constitutional Law (Pol. Sci. 131f)	3	—
Administrative Law (Pol. Sci. 134s)	—	3
Constitutional History of the United States (H. 115y) or Constitutional History of England (H. 125f, 126s)	3	3
Legislatures and Legislation (Pol. Sci. 124s)	—	3
Electives	6	6
	15	15

Senior Year

The student may elect either the curriculum for the first year of the School of Law or a fourth year's work from advanced courses offered in Political Science. In either case all of the requirements of the Division of Social Sciences and the College of Arts and Sciences for graduation must have been met.

THE PREPROFESSIONAL CURRICULA

Five-Year Combined Arts and Nursing Curriculum

The first two years of this curriculum are taken in the College of Arts and Sciences at College Park. If students enter this combined program with advanced standing, at least the second full year of this curriculum must be completed in College Park.

The remaining three years are taken in the School of Nursing of the University in Baltimore or in the Training School of Mercy Hospital, Baltimore. In addition to the Diploma in Nursing, the degree of Bachelor of Science in Nursing may, upon the recommendation of the Director of the School of Nursing, be granted at the end of the five year curriculum. Full details regarding this curriculum may be found in the section of the catalogue dealing with the School of Nursing. See page 222.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Foreign Language	3	3
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (Speech 1y)	1	1
History (H. 1y or 3y)	3	3
American National Government (Pol. Sci. 1s)	—	3
Library Methods (L. S. 1f)	1	—
Physical Education (Phys. Ed. 2y and 4y)	1	1
	16	18
Sophomore Year		
Expository Writing (Eng. 5f, 6s)	2	2
Principles of Sociology (Soc. 1f)	3	—
Introduction to Psychology (Psych. 1s)	—	3
Fundamentals of Economics (Econ. 57s)	—	3
General Bacteriology (Bact. 1f)	4	—
General Zoology (Zool. 1s)	—	4
Foreign Language	3	3
Electives	3	—
Physical Education (Phys. Ed. 6y and 8y)	2	2
	17	17

Premedical

The minimum requirement for admission to the School of Medicine of the University of Maryland is three years of academic training in the College of Arts and Sciences. Curriculum I as outlined meets these requirements, and also fulfills the requirements prescribed by the Council on Medical Education of the American Medical Association.

Curriculum II is outlined to meet the requirements of the Council on Medical Education of the American Medical Society, which prescribes two years of academic training as the minimum prerequisite for entering a Class A Medical School.

Curriculum I offers to students a combined seven-year program leading to the degrees of Bachelor of Science and Doctor of Medicine. The first three years are taken in residence in the College of Arts and Sciences at College Park, and the last four years in the School of Medicine in Baltimore. (See University catalogue for details of quantitative and qualitative premedical course requirements.)

Upon the successful completion of the first year in the School of Medicine, and upon the recommendation of the Dean of the School of Medicine, the degree of Bachelor of Science may be conferred by the College of Arts and Sciences, at the Commencement following the second year of professional training.

At least two years of residence are necessary for students transferring from other colleges and universities who wish to become candidates for the two degrees.

For requirements for admission see Section I, Admission, page 50.

Curriculum I

For students expecting to enter the University of Maryland Medical School

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Elements of College Mathematics (Math. 8f, 10s)	3	3
Fundamentals of Zoology (Zool. 3y)	4	4
General Chemistry (Chem. 1y)	4	4
Modern Language (French or German)	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	18	18

Sophomore Year	Semester I	Semester II
Survey and Composition II (Eng. 2f, 3s)	3	3
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elementary Organic Laboratory (Chem. 8By)	2	2
Modern Language (French or German)	3	3
Comparative Vertebrate Morphology (Zool. 4f)	3	—
Vertebrate Embryology (Zool. 20s)	—	3
Introduction to Philosophy (Phil. 1f)	3	—
Introduction to Psychology (Psych. 1s)	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	18

Junior Year		
General Physics (Phys. 1y)	4	4
Elements of Physical Chemistry (Chem. 103Ay)	2	2
Elements of Physical Chemistry Laboratory (Chem. 103By)	1	1
Reading and Speaking (Speech 1y)	1	1
Electives (Social Sciences)	3	3
Electives (Biological Sciences)	4	4
	15	15

Senior Year

The curriculum of the first year of the School of Medicine is accepted. The student also may elect the fourth year's work from advanced courses offered in the College of Arts and Sciences.

Curriculum II

For students desiring to meet the minimum requirements for admission to a Class A Medical School.

Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Elements of College Mathematics (Math. 8f, 10s)	3	3
Fundamentals of Zoology (Zool. 3y)	4	4
General Chemistry (Chem. 1y)	4	4
Modern Language (French or German)	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	18	18

Sophomore Year	Semester I	Semester II
General Physics (Phys. 1y)	4	4
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elementary Organic Laboratory (Chem. 8By)	2	2
Reading and Speaking (Speech 1y)	1	1
Comparative Vertebrate Morphology (Zool. 4f)	3	—
Introduction to Psychology (Psych. 1s)	—	3
Survey and Composition II (Eng. 2f, 3s)	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17

Predental

Students entering the College of Arts and Sciences who desire to prepare themselves for the study of dentistry are offered the following two-year curriculum, which meets the predental requirements of the American Association of Dental Colleges. This curriculum may also be followed by the student if he desires to continue his college training and complete work for the Bachelor of Science degree.

Curriculum

Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
Elements of College Mathematics (Math. 8f, 10s)	3	3
General Chemistry (Chem. 1y)	4	4
Fundamentals of Zoology (Zool. 3y)	4	4
Mechanical Drawing (Dr. 6 y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17

Sophomore Year		
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elementary Organic Laboratory (Chem. 8By)	2	2
General Physics (Phys. 1y)	4	4
Modern Language (French or German)	3	3
Electives (Humanities, Social Sciences)	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17

COLLEGE OF COMMERCE

W. MACKENZIE STEVENS, *Dean.*

The University of Maryland is in an unusually favorable location for students of economics and commerce; for downtown Washington is only twenty-four minutes away in one direction, while the Baltimore business district is less than an hour in the other—both cities with frequent transportation services to the University gates. Special arrangements are made to study commercial, manufacturing, exporting, and importing facilities and methods in Baltimore; and every assistance is given qualified students who wish to obtain a first hand glimpse of the far-flung economic activities of the National Government or utilize the libraries, government departments, and other facilities provided in Washington.

The College of Commerce provides professional training in economics and business administration for those who plan to become executives, teachers, or investigators in commercial, industrial, agricultural, or governmental economic enterprises.

While the curricula offered are technical and vocational, all require a thorough basic training in mathematics, statistics, English, and speech. The courses required in these fields are tool subjects needed for proper analysis, explanation, and interpretation of modern economic data.

Liberal allowance in every curriculum is made for other social sciences or for purely cultural non-vocational subjects, in order that students may acquire the breadth of vision needed by a present day economist, agricultural leader, or business executive.

The College of Commerce offers a selection of courses in each of the following seven fields of general and applied economics: General Economics, Agricultural Economics, Accounting, Finance, Marketing, Trade and Transportation, and Organization and Management.

Subject to the group and curricula requirements described subsequently, a student may, with the advice of his faculty adviser, elect individual courses from any or all of these groups in accordance with his needs.

Several standardized curricula are offered for the guidance of students in the selection of courses, namely: General Business, Accounting, Finance, Marketing and Sales Administration, Cooperative Organization and Administration, Agricultural Economics, and Commerce-Law. Unless a student wishes to take the combination Commerce-Law or the Agricultural Economics curriculum, he registers for the Lower Division General Business Curriculum for the freshman and sophomore years and decides at the beginning of his junior year whether he wishes to specialize in Accounting, Finance, Marketing, or Cooperation, or continue with a General Business training. Combinations to fit other vocational needs can be worked out by a different selection of courses in the junior and senior years.

Advisory Councils

In order to facilitate the prompt and continuous adjustment of courses, curricula, and instructional methods to provide the training most in demand by industry and commerce, and in order constantly to maintain instruction abreast of the best current practice, the advice and suggestions of business men are constantly sought and received through Advisory Councils composed of outstanding leaders in each major field of business activity. Each Council has its own particular interest to serve, such as advertising, marketing, or finance; and the viewpoint and suggestions of these business men are proving to be invaluable in developing the instructional and research program of the College.

Group Requirements For Graduation

A student who has met all entrance requirements may be granted the degree of Bachelor of Science upon the satisfactory completion of not fewer than 120 semester hours, not including the six hours of basic Military Science required of all able-bodied men students, or the six hours of physical education for women and for such men as are excused from Military Science.

Of these 120 credits, not fewer than 48 must be in general or applied economics, that is, in courses offered in the departments of Economics, Business Administration, or Agricultural Economics, and not fewer than 48 in subjects not offered by these departments; provided that courses in principles of economics may be considered to be in either category.

The following minimum requirements in each of the groups specified must be completed before graduation, except as indicated in a particular curriculum.

1. English and Speech—fourteen credits.
2. Mathematics and Natural Science—twelve credits.
3. Military Science or Physical Education—six credits.
4. Social Science and Foreign Languages—not fewer than twelve hours are required in psychology, sociology, political science, and history, and considerably more than these are recommended; provided that electives in foreign languages or other humanities may be substituted for six hours of this requirement.
5. Economics—twelve credits.
6. Organization and Management, Accounting, Finance, Marketing, Trade and Transportation, and additional requirements as specified in each curriculum.

Scholarship Requirements

To be eligible to enter courses ordinarily carried in the junior year, a student enrolled in the College of Commerce must have an average grade as high as C in not fewer than 58 credit hours, not including the six hours of basic Military Science required of all able-bodied men students, or the six hours of physical education for women and for such men as are excused

from Military Science. To be awarded the baccalaureate degree from this college, he must have (1) a grade as high as C in general and applied economics courses aggregating not fewer than 48 semester hours, and (2) a general average grade as high as C.

Electives And Extra-Curricular Activities

Business, agricultural, and industrial leaders now require a much broader educational background than that provided by vocational courses in economics and administration alone. Group requirements have been set up accordingly which demand that not fewer than 48 semester credit hours shall be from non-economics courses. A considerably larger number of semester hours may be elected from non-economics subjects by a student who is willing to forego a proportionate number of specialized courses in economics and business administration.

Other social sciences, such as sociology, history, political science, and applied psychology are useful in furnishing the broad background in social sciences needed by any student of economics; and these subjects tend to make him a more useful citizen. Logic, ethics, and other philosophy courses open up a new world of intellectual pleasure to the student; and training provided by such subjects in abstract thinking is also useful vocationally. Courses in music and art may serve as a welcome diversion from vocational courses; and the social and extra-curricular development that music facilitates is desirable for students of economics or business.

Commerce students should diversify their non-economic selections so as to obtain the broadest possible general education within the time at their disposal. While the freedom of choice offered through electives is sufficient to enable a student to study whatever cultural subjects or vocational techniques he needs anywhere in the University, he who wishes to elect as much as a minor in any one department outside the College of Commerce must secure the approval of the head of that department to his study list, in order that the selections may be effectively adapted to the vocational or cultural objectives sought.

Extra-curricular activities are recommended to students of this college whenever the physical and mental capacity of the individual student and available free time permit. Excellence in such activities often has a definite value in procuring business positions at graduation; and experience gained in this way is frequently invaluable in later life.

Additional electives above the curriculum requirements in either vocational or non-economics courses are encouraged whenever a student can demonstrate the capacity to carry additional subjects satisfactorily. Grades received in previous work will be the determining factor for decision as to extra student load in each case. Students who do not average better than C will not be permitted to carry additional courses beyond the curriculum requirements.

Collegiate Chamber of Commerce

The Collegiate Chamber of Commerce provides students of business administration with an organization in which they may learn to work effectively with others in conferences and committees, and through which they may be brought into close contact with business men and trade associations in the types of business in which they are most interested. The Collegiate Chamber of Commerce maintains close relations with the Junior and Senior Chambers of Commerce in the various cities of Maryland and with the United States Chamber of Commerce in Washington. It is controlled by a board of directors elected by students of the College, two from each class and one from each student organization in the College. Membership is voluntary, but all students of business are urged to take part in its activities, for much of the training obtained is as valuable as that obtained in regular courses.

While general and social meetings are held periodically, most of the activities are centered in the following committees, each of which fosters study, business contacts, association with corresponding committees in city, state, and national chambers of commerce, discussion, field trips, and advancement of students interested in each field: Marketing, Public Relations, Civic Affairs, Community Affairs, Finance, Foreign Trade, Agricultural Affairs, and Industrial Affairs. A member of the faculty who is qualified in the special field in which a given committee is working serves as adviser. Additional committees are formed whenever a sufficient number of students desire them.

Beta Gamma Alpha

Beta Gamma Alpha is a local scholastic fraternity. Students in the College of Commerce who have maintained high scholastic averages are eligible to membership. Election each year is limited to two per cent of the junior class, to ten per cent of the senior class, and to not more than one graduate student.

Beta Alpha Psi

Beta Alpha Psi is a national accounting fraternity which is made up of students majoring in Accounting who have maintained a high scholastic record.

Class of 1926 Award

The Class of 1926 of the School of Business Administration of the University of Maryland at Baltimore offers each year a gold key to the senior graduating from the College of Commerce with the highest average for the entire four-year course taken at the University of Maryland.

Student Advisers

Each student in the College of Commerce is assigned to a faculty adviser who, so far as practicable, is a specialist in the student's field of interest. A student who plans to become an accountant, for instance, has a professor of accounting as his adviser; one who is interested in banking as a career, a professor of finance; and those interested in marketing, advertising, foreign trade, industrial management, agricultural economics, and other subjects, specialists in these fields. Students are expected to see their advisers

regularly about registration, curricular requirements, scholarship requirements, and such personal or university matters as may be desirable.

Business Curriculum*

Freshman Year	*Semester I*	*II*
Survey and Composition (English 1y)	3	3
General Mathematics (Math. 20y), (for students of Commerce)	3	3
Economic Geography (T. and T. 1f)	3	—
Development of Commerce and Industry (T. and T. 4s)	—	3
Reading and Speaking (Speech 1y)	1	1
†Foreign Language, Political Science, or elective	3	3
Science (preferably Chemistry)	3–4	3–4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	—	—
	17–18	17–18
Sophomore Year		
Expository Writing (Eng. 5f)	2	—
Business English (Eng. 4s)	—	2
Elements of Statistics (Stat. 14f)	3	—
Economic Statistics (Stat. 15s)	—	3
Principles of Economics (Econ. 51y)	3	3
Principles of Accounting (Acct. 51y)	4	4
Money and Banking (Fin. 53s)	—	3
Psychology for Students of Commerce (Psych. 4f) or ‡Elective (See suggested courses below)	3	—
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	—	—
	17	17

Suggested Elective Courses:

Government: American National (Pol. Sci. 1f and s)—3.
State and Local (Pol. Sci. 4f and s)—3.
Comparative (Pol. Sci. 7f, 8s)—2, 2.

History: A Survey of Western Civilization (H. 1y)—6.
American (H. 2y)—6.
England and Great Britain (H. 3y)—6.

Social Sciences: Introduction (Soc. Sci. 1y)—6. (Elect in Freshman year only.)

Sociology: Principles (Soc. 1f and s)—3.

*See also Commerce-Law and Agricultural Economics curricula which are described on subsequent pages.

†It is important that students take foreign language if they expect to pursue graduate work later or enter foreign trade work.

‡Special attention is called to the elective in Advanced Speech (2), which must be taken in sophomore, junior, or senior year.

Psychology: For Students of Commerce (Psych. 4f)—3; or Applied (Psych. 3s)—3.
Introduction (Psych. 1f and s)—3.

Philosophy: Introduction (Phil. 1f and s)—3.
Logic (Phil. 22f)—3.
Ethics (Phil. 23f)—3.

Speech: Advanced (3f, 4s)—2, 2.
Extempore (9f, 10s)—1, 1.

English: Survey of American Literature (Eng. 7f, 8s)—3, 3.
Expository Writing continued (Eng. 6s)—2.
College Grammar (Eng. 14f)—3.

Science: Introductory courses in Chemistry, Botany, Geology, Physics, or Zoology—3, 4, 6, 8.

Language: French, German, Spanish, or Italian—6.

Drawing: Mechanical (Dr. 6y)—2.

General Business Curriculum

	Semester I	*II*
Junior Year		
Corporation Finance (Fin. 111f)	3	—
Principles of Marketing (Mkt. 101f)	3	—
Industrial Management (O. and M. 121s)	—	3
Business Law I (O. and M. 101s)	—	3
Advanced Accounting (Acct. 101f, 102s)	3	3
*Electives (See suggested courses below)	6	6
	—	—
	15	15
Senior Year		
Business Law II (O. and M. 102f)	3	—
Financial Analysis and Control (Fin. 199s)	—	3
*Electives (See suggested courses below)	12	12
	—	—
	15	15

Suggested Elective Courses

Economics of Cooperative Organization (Econ. 161f)—3.
Insurance (Fin. 141f)—3.
Farm Economics (A. E. 100f)—3.
Principles of Foreign Trade (T. and T. 101f)—3.
Principles of Transportation (T. and T. 111f)—3.
Credits and Collections (Fin. 125f)—3.
Public Finance (Fin. 106f)—3.
Investments (Fin. 115f)—3.
Labor Economics (Econ. 130f)—3.
Principles of Advertising (Mkt. 109f)—3.
Social and Economic History of the U. S. (H. 111f, 112s)—6.
Principles of Public Administration (Pol. Sci. 111f)—3.

Speech electives are recommended for either semester.

*Electives should include not less than six hours of advanced economics during junior and senior years.

Economics of Consumption (Econ. 136s)—3.
Banking Principles and Practices (Fin. 121s)—3.
Salesmanship and Salesmanagement (Mkt. 105s)—3.
Public Utilities (Econ. 145s)—3.
Social Control of Business (Econ. 152s)—3.
Psychology in Advertising and Selling (Psych. 141s)—3.
Industrial Psychology (Psych. 160f)—3.
Personnel (O. and M. 125s)—3.
Legislatures and Legislation (Pol. Sci. 124s)—3.
Real Estate (Fin. 151s)—3.

Accounting Curriculum

	Semester I	Semester II
Junior Year		
Corporation Finance (Fin. 111f)	3	—
Advanced Accounting (Acct. 101f, 102s)	3	3
Cost Accounting (Acct. 121f, 122s)	2	2
Business Law I (O. and M. 101s)	—	3
†Electives (See suggested courses below)	7	7
	15	15
Senior Year		
Business Law II (O. and M. 102f)	3	—
Auditing Theory and Practice (Acct. 171f, 172s)	2	2
Specialized Accounting (Acct. 181f, 182s)	3	3
Financial Anaylsis and Control (Fin. 199s)	—	3
†Electives (See suggested courses below)	7	7
	15	15

Suggested Elective Courses:

*Income Tax Procedure (Acct. 161f)—3.
Principles of Foreign Trade (T. and T. 101f)—3.
Principles of Transportation (T. and T. 111f)—3.
Industrial Combination (Econ. 153f)—3.
Investments (Fin. 115f)—3.
Principles of Marketing (Mkt. 101f)—3.
Advanced Economic Principles (Econ. 190f)—3.
*Advanced Business Law (O. and M. 103s)—2.
*C. P. A. Problems (Acct. 186s)—3.
Industrial Management (O. and M. 121s)—3.
Banking Principles and Practices (Fin. 121s)—3.
Public Utilities (Econ. 145s)—3.
Accounting Apprenticeship (Acct. 149)—0.

†Electives should include not less than six hours of advanced economics during junior and senior years.
*Essential for students who plan to prepare for a career in public accounting.

Marketing and Sales Administration Curriculum

	Semester I	Semester II
Junior Year		
Corporation Finance (Fin. 111f)	3	—
Principles of Marketing (Mkt. 101f)	3	—
Principles of Advertising (Mkt. 109f)	3	—
Economics of Cooperative Organization (Econ. 161f)	3	—
Salesmanship and Salesmanagement (Mkt. 105s)	—	3
Business Law I (O. and M. 101s)	—	3
†Electives (See suggested courses below)	3	9
	15	15
Senior Year		
Business Law II (O. and M. 102f)	3	—
Marketing Research and Market Policies (Mkt. 199s)	—	3
Financial Analysis and Control (Fin. 199s)	—	3
†Electives (See suggested courses below)	12	9
	15	15

Suggested Elective Courses:

Credits and Collections (Fin. 125f)—3.
Principles of Foreign Trade (T. and T. 101f)—3.
Principles of Transportation (T. and T. 111f)—3.
Consumer Financing (Fin. 105f)—3.
Psychological Problems in Market Research (Psych. 140f)—3.
Insurance (Fin. 141f)—3.
Farm Economics (A. E. 100f)—3.
Labor Economics (Econ. 130f)—3.
Supervised Practice in Marketing (Mkt. 149)—2.
Retail Store Management and Merchandising (Mkt. 119s)—3.
Export and Import Trade Procedure (T. and T. 121s)—3.
Marketing of Farm Products (A. E. 102s)—3.
Economics of Consumption (Econ. 136s)—3.
Psychology in Advertising and Selling (Psych. 141s)—3.
Purchasing Technique (Mkt. 115s)—3.
Real Estate (Fin. 151s)—3.
Food Products Inspection (A. E. 105s)—2.
Industrial Management (O. and M. 121s)—3.

The list of potential electives for students interested in special phases of advertising and marketing is too great for inclusion here. A student who is training for some position in the garment trade, department store work, or other classes of retailing, might wish to substitute, for instance, Textiles (H. E. 71f), Advanced Textiles (H. E. 171f), or Merchandise Display (H. E. 125s). Advertising students may wish to elect courses in Art or English in the College of Arts and Sciences. Those interested in the marketing and installation of mechanical or electrical equipment will wish to elect a number of courses in the College of Engineering. Persons plan-

†Electives should include not less than six hours of advanced economics during junior and senior years.

ning to engage in marketing of agricultural products may choose courses in the College of Agriculture.

Finance Curriculum

	Semester I	Semester II
Junior Year		
Corporation Finance (Fin. 111f)	3	—
Advanced Accounting (Acct. 101f, 102s)	3	3
Advanced Banking Principles and Practices (Fin. 121s)	—	3
Business Law I (O. and M. 101s)	—	3
†Electives (See suggested courses below)	9	6
	15	15
Senior Year		
Business Law II (O. and M. 102f)	3	—
Investments (Fin. 116f)	3	—
Financial Analysis and Control (Fin. 199s)	—	3
†Electives (See suggested courses below)	9	12
	15	15

Suggested Elective Courses:

Public Finance (Fin. 106f)—3.
Credits and Collections (Fin. 125f)—3.
Insurance (Fin. 141f)—3.
Land Economics (A. E. 111f)—3.
Consumer Financing (Fin. 105f)—3.
Stock and Commodity Exchanges (Fin. 118f)—3.
Economics of Cooperative Organipation (Econ. 161f)—3.
Public Utilities (Econ. 145s)—3.
Farm Finance (A. E. 104s)—3.
Supervised Practice in Finance (Fin. 149)—2.
Real Estate (Fin. 151s)—3.
Investment Banking (Fin. 116s)—3.
International Finance (Fin. 129s)—3.
Social Control of Business (Econ. 152s)—3.

Agricultural Economics Curriculum*

	Semester I	Semester II
Freshman Year		
Survey and Composition (Eng. 1y)	3	3
General Mathematics (Math. 20y), (for students of Commerce)	3	3
Agricultural Industry and Resources (A. E. 1f)	3	—
Farm Organization (A. E. 2s)	—	3
Biology (Bot. 1f and Zool. 1s, or Zool. 2f and Bot. 2s), Geology (Geol. 1f), or Foreign Language	3–4	3–4
General or Introductory Chemistry (Chem. 1y or 3y)	4–3	4–3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y	1	1
	17–18	17–18

*Students registered in this curriculum should satisfy the Professor of Agricultural Economics that they have had adequate farm experience before entering the junior year.

†Electives should include not less than six hours of advanced economics during junior and senior years.

	Semester I	Semester II
Sophomore Year		
Expository Writing (Eng. 5f, 6s)	2	2
Reading and Speaking (Speech 1y)	1	1
Elements of Statistics (Stat. 14f)	3	—
Economic Statistics (Stat. 15s)	—	3
Principles of Economics (Econ. 51y)	3	3
Money and Banking (Fin. 53s)	—	3
Principles of Accounting (Acct. 51y)	4	4
Agriculture Elective	2–3	—
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17–18	18
Junior Year		
Farm Economics (A. E. 100f)	3	—
Marketing of Farm Products (A. E. 102s)	—	3
Business Law I (O. and M. 101s)	—	3
Farm Management (A. E. 108f)	3	—
Economics of Cooperative Organization (Econ. 161f)	3	—
Corporation Finance (Fin. 111f)	—	3
†Farm Finance (A. E. 104s)	3	—
†Land Economics (A. E. 111f)	—	3
Prices of Farm Products (A. E. 106s)	1	4
†Electives	—	—
	16	16
Senior Year		
Business Law II (O. and M. 102f)	3	—
Cooperation in Agriculture (A. E. 103f)	3	—
Financial Analysis and Control (Fin. 199s)	—	3
Contemporary Economic Thought (Econ. 191s)	—	3
‡Research Problems (A. E. 109y)	1	1
Economics of Consumption (Econ. 136s)	—	3
Rural Sociology (Soc. 102f)	2	—
†Electives	7	6
	15–16	15–16

†Two hours of speech elective must be taken during the sophomore, junior, or senior years. A. E. 111f and A. E. 104s may be postponed until the senior year if this will facilitate the selection of useful electives during the last two years.

‡Elective for honor students only.

COMBINED PROGRAM IN COMMERCE AND LAW

Students who wish to combine commercial and legal studies to obtain both Bachelor of Science and Bachelor of Laws degrees may do so by selecting their courses in such a way as to comply with all of the group and specific requirements of the College of Commerce in three years, and then completing the 126 hours required for graduation from this college by courses taken in the University of Maryland School of Law at Baltimore.

During the first three years, students will be registered in the College of Commerce. In the fourth year and thereafter, unless the four-year alternative program is taken, they will be registered in the School of Law; but they must forward copies of their study lists to the office of the Dean of Commerce at the beginning of each semester of the fourth year. At the end of the fourth year, the degree of Bachelor of Science may be awarded in the College of Commerce upon the recommendation of the Dean of the Law School. The degree of Bachelor of Laws will be awarded upon satisfactory completion of the entire program.

Curriculum

Freshman Year	*Semester* I	*Semester* II
Survey and Composition (Eng. 1y)	3	3
General Mathematics (Math. 20y), (for Commerce students)	3	3
Economic Geography (T. and T. 1f)	3	—
Development of Commerce and Industry (T. and T. 4s)	—	3
Reading and Speaking (Speech 1y)	1	1
American National Government (Pol. Sci. 1f)	3	—
State and Local Government (Pol. Sci. 4s)	—	3
History of England and Great Britain (H. 3y)	3	3
R. O. T. C. (M I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17
Sophomore Year		
Expository Writing (Eng. 5f)	2	—
Business English (Eng. 4s)	—	2
Principles of Economics (Econ. 51y)	3	3
Principles of Accounting (Acct. 51y)	4	4
Elements of Statistics (Stat. 14f)	3	—
Economic Statistics (Stat. 15s)	—	3
Money and Banking (Fin. 53s)	—	3
Advanced Public Speaking (Speech 3f)	2	—
Comparative Government (Pol. Sci. 7f)	2	—
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	17

Junior students may elect either the accounting or the economics group of courses:

Junior Year—Accounting Concentration	*Semester* I	*Semester* II
Corporation Finance (Fin. 111f)	3	—
*Financial Analysis and Control (Fin. 199s)	—	3
Principles of Marketing (Mkt. 101f)	3	—
Industrial Management (O. and M. 121s)	—	3
Advanced Accounting (Acct. 101f, 102s)	3	3
Cost Accounting (Acct. 121f, 122s)	2	2
Auditing Theory and Practice (Acct. 171f, 172s)	2	2
Argumentation (Speech 11f, 12s)	2	2
Extempore Speaking (Speech 9f, 10s)	1	1
	16	16
Junior Year—Economics Concentration		
Corporation Finance (Fin. 111f)	3	—
*Financial Analysis and Control (Fin. 199s)	—	3
Principles of Marketing (Mkt. 101f)	3	—
Public Finance (Fin. 106f)	3	—
Labor Economics (Econ. 130f)	3	—
*Social Control of Business (Econ. 152s)	—	3
Economics of Consumption (Econ. 136s)	—	3
Public Utilities (Econ. 145s)	—	3
Argumentation (Speech 11f, 12s)	2	2
Extempore Speaking (Speech 9f, 10s)	1	1
Electives	1	1
	16	16

Senior Year

First year of regular Law School; or, preferably, graduation from the four-year curriculum in Commerce-Law before entering Law School. In the latter case, Business Law I is substituted for Financial Analysis and Control, and an approved elective for Social Control of Business in the junior year, the replaced courses being taken in the senior year. The additional requirements are shown below:

*Financial Analysis and Control (Fin. 199s)	—	3
*Social Control of Business (Econ. 152s)	—	3
Business Law II (O. and M. 102f)	3	—
Electives (See suggested courses below)	12	9
	15	15

*Preferably taken in senior year if the four-year curriculum is followed.

Suggested Elective Courses:

Selections from the economics or accounting concentrations previously shown, additional speech or English courses, and the following:

Advanced Economic Principles (Econ. 190f)—3.
Comparative Economic Systems (Econ. 151f)—3.
Credits and Collections (Fin. 125f)—3.
Principles of Foreign Trade (T. and and T. 101f)—3.
Insurance (Fin. 141f)—3.
Principles of Public Administration (Pol. Sci. 111f)—3.
History of Political Theory (Pol. Sci. 141f)—3.
Investments (Fin. 115f)—3.
Economics of Cooperative Organization (Econ. 161f)—3.
Principles of Transportation (T. and T. 111f)—3.
Industrial Combination (Econ. 153f)—3.
†Specialized Accounting (Acct. 181f, 182s)—3, 3.
†Income tax Procedure (Acct. 161f)—3.
Contemporary Economic Thought (Econ. 191s)—3.
Labor and Government (Econ. 131s)—3.
Advanced Banking Principles and Practices (Fin. 121s)—3.
International Finance (Fin. 129s)—3.
Real Estate (Fin. 151s)—3.
Personnel (O. and M. 125s)—3.
Recent Political Theory (Pol. Sci. 142s)—3.
Constitutional History of the United States (H. 115y)—6.
Psychology in Advertising and Selling (Psych. 141s)—3.
Legislatures and Legislation (Pol. Sci. 124s)—3.
Farm Finance (A. E. 104s)—3.
†C. P. A. Problems (Acct. 186s)—3.
†Advanced Business Law (O. and M. 103s)—2.

COOPERATIVE AND BUSINESS ASSOCIATION

Cooperative organizations among farmers, consumers, and business men are taking a steadily more important part in modern economic life. Although agricultural, consumers', and credit cooperatives are well known, it is not generally realized that cooperative principles are being increasingly utilized by merchants, manufacturers, investors, and others in trade associations, mutuals, voluntary groups, and other types of democratically controlled organizations that may or may not call themselves cooperative. The problems of organization and administration of a cooperative are much the same whether the enterprise is a farmers' marketing association, a retail merchants' cooperative, a wholesalers' voluntary chain, a group of manufacturers who set up an association to carry their own insurance, produce jointly, or advertise and sell cooperatively, a group of farmers or urban dwellers who establish an association to purchase or produce the goods and services they consume, a credit union, a building and loan association, or the business men of a community or of a given type of business who jointly carry on any continuous business enterprise.

The form of ownership and control and the objectives of a cooperative are different from those of its centrally controlled competitor to such a

†Essential for students who wish to prepare for C. P. A. examinations.

degree that training and experience suitable for executive responsibility in the latter type of enterprise is not adequate for cooperative leadership; because the managerial problems of a cooperative or business association include not only most of those arising from the nature of the business but also additional problems brought about by these differences in ownership relations, objectives, and control.

A student intending to prepare himself for positions with cooperative enterprises has two alternatives: (a) To register in one of the specialized curricula such as Finance, Marketing, Accounting, or Agricultural Economics, in accordance with the type of work he wishes to do with cooperatives, and then use electives to obtain as much cooperative theory and practice as practicable, or (b) To register for the curriculum in Cooperative Organization and Administration that follows, and then elect courses that will give him a reasonably adequate technical knowledge of the type of activity with which he plans to associate himself. For instance, a person intending to work with farmer cooperatives should have at least one course in agriculture during each of his eight semesters; a student of consumer cooperation should elect Economics of Consumption (Econ. 136s), Retail Store Management and Merchandising (Mkt. 119s), and Purchasing Technique (Mkt. 115s); a person intending to specialize in the credit union or savings and loan field should elect several courses in finance; and a student of trade or business association work should elect courses that fit in most closely with the kind of business with which he expects to be associated.

Since every student interested in cooperation as a career should have the basic training provided in the lower division general business curriculum in any case, he need not make a definite decision until the beginning of his junior year, though students are urged to use the electives provided during the first two years to obtain so far as possible the background subjects likely to be needed.

Practical experience is exceedingly important. Students intending to work with agricultural cooperatives, should have farm experience, for example, and all students who plan to make cooperative organization and management a career should arrange for practical work with cooperatives as early as may be practicable. The course entitled "Supervised Practice in Cooperation," which involves experience with cooperatives, should be taken during the summer between the junior and senior years unless a different period is arranged.

Washington is the national headquarters of the agricultural cooperatives of this country, and arrangements have been made for properly equipped students to have cooperative experience by means of close working arrangements maintained with the National Cooperative Council.

Unusual facilities for the study of cooperatives of all types are also available in the government agencies and libraries of Washington, and special arrangements will be made for properly qualified students to make the most of the opportunity for special study thus offered. Most trade and business associations have headquarters or representation in Washington.

The courses below are suggested for the junior and senior years, though

substitutions will be permitted whenever the student's adviser believes this will improve the training for a particular type of cooperative work.

Cooperative Curriculum

	Semester I	Semester II
Junior Year		
Business Law I (O. and M. 101s)	—	3
Corporation Finance (Fin. 111f)	3	—
Principles of Marketing (Mkt. 101f)	3	—
Industrial Management (O. and M. 121s)	—	3
Advanced Accounting (Acct. 101f, 102s)	3	3
*Principles of Transportation (T. and T. 111f)	3	—
Economics of Cooperative Organization (Econ. 161f)	3	—
Economics of Consumption (Econ. 136s)	—	3
Elective	—	3
	—	—
	15	15
†Supervised Practice in Cooperation (O. and M. 149) (Summer)	2	—
Senior Year		
Business Law II (O. and M. 102f)	3	—
Financial Analysis and Control (Fin. 199s)	—	3
Cooperation in Agriculture (A. E. 103f)	3	—
*Retail Store Management and Merchandising (Mkt. 119s), or		
*Purchasing Technique (Mkt. 115s)	—	3
*Consumer Financing (Fin. 105f)	3	—
*Contemporary Economic Thought (Econ. 191s)	—	3
*Auditing Theory and Practice (Acct. 171f, 172s)	2	2
Problems in Cooperative Administration (O. and M. 161s)	—	3
Extempore Speaking (Speech 9f, 10s)	1	1
Elective	3	—
	—	—
	15	15

SPECIAL CURRICULA

Suggestions for a selection of courses in Management, Personnel Administration and Industrial Relations to constitute a curriculum are available upon request to the Dean. Other organized programs of study will be developed whenever the needs of business and industry or the demands of students for training in other fields of business administration or economics warrant it.

A student who has completed the basic first two years of Commerce with an average grade of B may, with the approval of his adviser, petition for a special curriculum if he can demonstrate to the satisfaction of the Dean that the courses needed for his intended vocation are different from those offered in any of the foregoing standardized curricula. If the petition be granted, a special curriculum designed to fit the specific needs of such a student may be set up and made a part of his permanent record. Thereafter, the requirements for graduation of this student will be as set forth in his special curriculum. All such special curricula are subject to the scholarship, group, and specific course requirements of the College.

*Suggested electives for students who wish general training and do not have a particular type of cooperation or cooperative activity in mind.

†Application for this course must be made not later than March 1.

COLLEGE OF EDUCATION

HAROLD BENJAMIN, *Dean.*

The College of Education meets the needs of the following classes of students: (1) undergraduates preparing to teach the cultural and the vocational studies in high schools, preparatory schools, and vocational schools; (2) students who will enter higher institutions to prepare for work in specialized educational and institutional fields; (3) students preparing for educational work in the trades and industries; (4) students preparing to become home demonstrators, girls' club leaders, community recreation leaders, and (in cooperation with the Department of Sociology) social workers; (5) students whose major interest is in other fields, but who desire courses in education for their informational and cultural values; (6) graduate students preparing for teaching positions requiring an advanced degree and for positions as high school principals, elementary school principals, educational supervisors, attendance officers, and school administrators.

The Summer Session, although organically distinct from the College of Education, is administered by the Dean of the College of Education, and is in effect an administrative division of the College.

Facilities

In addition to the general facilities offered by the University, certain important supplementary facilities are available.

Supervised Teaching. Opportunity for supervised teaching under competent critic teachers is provided by arrangement with the school authorities of Prince Georges, Howard, and Montgomery Counties, and of the District of Columbia.

Observation. Observation of teaching is conducted in Washington and in nearby Maryland schools. The number, variety, and nearness of these schools provide ample and unusual opportunities for observation of actual classroom situations.

Other Facilities in Washington. The Library of Congress, the Library of the U. S. Office of Education, and the special libraries of other Government offices are accessible. The information services of the National Education Association, the American Council on Education, the U. S. Office of Education, and of other institutions, public and private, are available to students.

Requirements for Admission

The requirements for admission to the College of Education are in general the same as for the other colleges of the University. See Section I, Admission.

Candidates for admission whose high school records are consistently low are strongly advised not to seek admission to the College of Education.

Guidance in Registration

At the time of matriculation each student is assigned to a member of the faculty who acts as the student's personal adviser. Choice of subjects the student will prepare to teach should be made not later than the beginning of the sophomore year with the advice and approval of the appropriate adviser.

It is advisable for students who purpose to teach (except Vocational Agriculture) to register in the College of Education, in order that they may have continuously the counsel and guidance of the faculty which is directly responsible for their professional preparation. It is permissible, however, for a student to register in that college which in conjunction with the College of Education offers the majority of the courses he will pursue in satisfying the requirements of the curriculum he elects.

Students in other colleges desiring to elect an education curriculum should consult with the Dean of the College of Education *at the beginning of the sophomore year* in order to plan satisfactorily their subsequent programs. Adjustments may be made as late as the beginning of the junior year. *It is practically impossible to make adjustments later than that on account of the sequence of professional subjects in the junior and senior years.*

Admission of Teacher College Graduates

Graduates of the two- and three-year curricula of Maryland State Teachers Colleges and other accredited teacher education institutions whose records give evidence of the ability and character essential to teaching will be admitted to advanced standing and classified provisionally in appropriate classes. Graduates of the two-year teacher-training curriculum, in most cases, may satisfy the requirements for the degree of Bachelor of Science in Elementary Education by attendance for two full college years; graduates of the three-year curriculum, by attendance for one full college year.

Those who wish to satisfy the requirements for certification as high school teachers need more time. The amount of time required is not uniform, but depends upon the high school subjects to be taught and the individual ability of the student.

Sophomore Status

The "Introduction to Teaching" scheduled for the sophomore year is an orientation course. It is designed with the twofold purpose of giving students a view of the teacher's job and of testing the aptitude and fitness of students for teaching. Admission to this course is based upon the following: (1) completion of at least 30 semester hours of freshman work with an average grade as high as C; and (2) passing of series of tests which are designed to determine the student's preparation for the special demands of this course.

Junior Status

The first two years of college work are preparatory to the professional work of the junior and senior years. Students who, in the first two years,

by reason of temperament, health, industry, and scholastic progress, give promise of becoming successful teachers are encouraged to continue in the curricula of the College of Education; those who are unlikely to succeed as teachers by reason of health deficiencies, of weakness in oral and written English, of unfavorable personal traits, or of scholastic deficiency, are advised to transfer to other fields.

To be eligible for junior status a student must have completed 64 semester hours of freshman-sophomore courses with an average grade of C or better.

Professional Courses

The professional courses recognized by the State Department of Education for certification are given only in the junior and senior years. The minimum requirement for these is 16 semester hours, of which the following are prescribed: Educational Psychology, Technic of Teaching, Observation of Teaching, Special Methods, and Supervised Teaching.

To be eligible to enter the professional courses, a student must have attained junior status as defined above. Continuance in such courses will be contingent upon the student's remaining in the upper four-fifths of his class in subsequent semester revisions of class standing.

From the offerings of Education, the District of Columbia requirement of 24 semester hours of professional courses may be fully met.

Certification of High School Teachers

The State Department of Education certifies to teach in the approved high schools of the State only graduates of approved colleges who have satisfactorily fulfilled subject-matter and professional requirements. Specifically it limits certification to graduates who "rank academically in the upper four-fifths of the class and who make a grade of C or better in practice teaching."

Degrees

The degrees conferred upon students who have met the conditions prescribed for a degree in the College of Education are Bachelor of Arts and Bachelor of Science. Upon completion of 128 credits in conformity with the requirements specified under "Curricula" and in conformity with general requirements of the University, the appropriate degree will be conferred.

Curricula

The curricula of the College of Education, described in detail in the following pages, are designed to prepare high school teachers of the academic and scientific subjects, the special subjects, and the vocational subjects under the provisions of the Federal Vocational Education Acts.

The specifications for majors and minors, under "Arts and Science Education", satisfy the requirements of the State Department of Education in regard to "the number of college credits required in any two or more subjects which are to be placed on a high school teacher's certificate." The curricula for the special subjects cover all State Department requirements. The curricula for the vocational subjects meet the objectives set up

in the Federal Acts and in the interpretations of the Office of Education and of the State Board of Education. (For Agricultural Education see College of Agriculture, page 80.)

In the Arts and Science Education curriculum one may qualify for the degree either of Bachelor of Arts or Bachelor of Science, depending upon the major subject. The other curricula lead to the degree of Bachelor of Science.

The general and special requirements of each curriculum are shown in the following descriptions.

ARTS AND SCIENCE EDUCATION

Students electing this curriculum may register in the College of Education or in the College of Arts and Sciences. Students will be certified for graduation only upon fulfillment of all the requirements of this curriculum.

General Requirements

In addition to Military Science or Physical Education, required of all students in the University, the following requirements must be fulfilled by all candidates for degrees in this curriculum, normally by the end of the sophomore year:

(1) Survey and Composition I (Eng. 1y) and Survey and Composition II (Eng. 2f and 3s), 12 semester hours.

(2) Reading and Speaking (Speech 1y), 2 semester hours.

(3) Two years of foreign language, if the student enters with less than three years of foreign language; one year, if he enters with three years. No foreign language is required of students who enter with four or more years of foreign language. "Foreign language" includes both Ancient and Modern languages.

(4) Twelve semester hours of history and the social sciences.

(5) Twelve hours of natural science or of natural science and mathematics.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
*Foreign Language	3	3
Science (Biological or Physical)	3–4	3–4
From the following groups:		
History, Social Sciences, Mathematics, Science, Foreign Language, Music, Art, Physical Education	4–3	4–3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	15–16	15–16

*Except students entering with four or more units of language.

	Semester I	Semester II
Sophomore Year—(See "Sophomore Status," p. 148.)		
Introduction to Teaching (Ed. 2f, 3s)	2	2
Survey and Composition II (Eng. 2f, 3s)	3	3
†Foreign Language	3	3
Electives	7	7
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17
Junior Year—(See "Professional Courses," p. 149.)		
Educational Psychology (Psych. 10f)	3	—
Technic of Teaching (Ed. 5s)	—	2
Observation of Teaching (Ed. 6s)	—	1
History of American Education (Ed. 100f)	2	—
Special Methods (Ed. 120s; 122s; 124s; 126s; 128s)	—	3
Electives	11	10
	16	16
Senior Year		
‡Supervised Teaching (Ed. 139f or s)	2 or	2
The High School (Ed. 103s)	—	3
or		
The Junior High School (Ed. 110f)	3	—
Electives	11–14	11–14
	—	—
	16	16

Specific Requirements

Each student is expected to prepare for the teaching of at least two high school subjects in accordance with the certification requirements of the State Department of Education (By-law 30 revised). These are designated as major and minor subjects, with a requirement of from 28 to 36 semester hours of credit for a major and from 20 to 24 hours for a minor. If it is deemed advisable for a student to prepare for the teaching of three high school subjects, the requirement for a major may be modified at the discretion of the Dean to permit the pursuit of three subjects to the extent required for State certification. Semester hour requirements are detailed below.

No student who has not met all previous requirements will be permitted to do practice teaching.

†For students entering with less than three units of language.

‡See Course description, p. 289.

English. A major in English requires 36 semester hours as follows:

Survey and Composition I and II	12 semester hours
Shakespeare (Eng. 11f or 12s)	3 semester hours
American Literature	6 semester hours
Electives	15 semester hours
	36

A minor in English requires 26 semester hours. It includes the 21 hours prescribed for the major and 5 hours of electives.

Electives must be chosen from a selected list of courses with the advice and approval of the instructor in "English in the High School." The standards governing selection are those suggested by the National Council of Teachers of English.

Survey and Composition I and II must be completed by the end of the junior year.

Social Sciences. For a major in this group, 30 semester hours are required, of which at least 18 hours must be history including 6 hours in American history and 6 in European history. Six of the 18 hours must be in advanced courses. For a minor in the group, 24 hours are required, of which 18 are the same as specified above, and 6 of which must be in advanced courses. In every case the selection of courses must be approved by the head of the department in which the largest portion of the work is to be elected.

History	18 semester hours
Economics or Sociology	6 semester hours
Electives	6 semester hours

For a minor, the same requirements less the electives.

Required courses in History are as follows: A Survey of Western Civilization and American History. These must be completed by the end of the junior year.

Modern Languages. For a major in Modern Languages 30 semester hours are required; for a minor 24 semester hours (exclusive of the introductory course).

At least 18 hours of a major or minor in modern language must be completed by the end of the junior year.

A major or minor in French must include French 5s, 9y, 10y, and two courses of the 100 group.

A major or minor in Spanish must include Spanish 5s, 6y, and two courses of the 100 group.

A major or minor in German must include German 5s, 10y, and two courses of the 100 group.

* See paragraphs on special requirements for major in English in Section III on English Language and Literature, p. 314.

Mathematics. Twenty-eight semester hours are required for the major. The following sequence is recommended: Math. 7f, 21f, and 22s in the freshman year; Math. 18y and 23y in the sophomore year; Math. 111f, 112s, and 141f in the junior and senior years.

Twenty semester hours are required for the minor. The following course sequence is advised: Math. 7f, 21f and 22s in the freshman year; Math. 23y in the sophomore year; and Math. 18y and 111f in the junior and senior years.

Students who pass an examination in solid geometry may be excused from Math. 7f.

Mathematics-Physics. This major consists of 18 hours in mathematics and 18 hours in physics. The courses selected must include Math. 7f, 21f, and 22s; Phys. 1y and 103y.

Students who pass an examination in solid geometry may be excused from Math. 7f.

Chemistry 1y is required as a supporting course to this major.

If a minor in general science is offered in connection with this major, a total of 40 hours in the natural sciences should be presented.

Science. In general science a major and minor are offered, consisting of 40 and 30 hours respectively, each including elementary courses in chemistry, physics, and biology (zoology and botany). The major must include one of the following course sequences.

Sequences I and II, emphasizing chemistry or physics:

Freshman year: *Math. 8f (3) or 21f (4); 10s (3) or 22s (4); Chem. 1y (8).

Sophomore year: Bot. 1f (4); Phys. 1y (8).

Junior and senior years: Phys. 103y (6) or Chem. 12y (6), and 103y (6); Zool. 3y (8); Bact. 1A (2).

Sequence III, emphasizing zoology:

Freshman year: Zool. 3y (8); Chem. 1y (8).

Sophomore year: Zool. 12f (3) and 6s (3); Bot. 1f (4).

Junior and senior years: Zool. 103y (6); Phys. 3y (6) or 1y (8); Bact. 1A (2).

Sequence IV, emphasizing botany:

Freshman year: Zool. 3y (8); Chem. 1y (8).

Sophomore year: Bot. 1f (4) and 3s (4); Phys. 3y (6) or 1y (8).

Junior and senior years: Plt. Phys. 101f (4) and 102s (3); Bact. 1A (2).

Minors of twenty semester hours are offered in chemistry, in physics, and in biological science. A minor in biology must include the basic courses in

*Mathematics credits are not counted in the total number of hours required for the science major.

zoology and botany and be supported by a course in chemistry (Chem. 1y or 3y). A minor in physics must be supported by a basic course in chemistry (Chem. 1y or 3y) and a minor in chemistry by a basic course in physics (Phys. 1y or 3y).

If a major in general science is accompanied by a minor in chemistry, physics or biology, the same credits may be counted towards both provided that they number not fewer than 52 semester hours in natural sciences.

AGRICULTURAL EDUCATION

(See College of Agriculture, page 80.)

COMMERCIAL EDUCATION

The entrance requirements for the curriculum in Commercial Education are as follows: English 3 units; Algebra 1 unit; Science 1 unit; History 1 unit; Stenography 2 units; Typewriting 1 unit; Bookkeeping 1 unit; elective 5 units.

The Commercial Education curriculum includes a solid foundation of economics, social science and history, accounting and business administration subjects, adequate courses in methods of teaching commercial subjects, and supervised teaching.

The number of electives is large enough to enable a student to prepare for teaching some other subject in addition to the commercial subjects.

The curriculum does not include any college courses in shorthand and typewriting for the improvement of skill in these arts. Any student desiring to become a candidate for the bachelor's degree in commercial education must meet the speed and accuracy requirements in shorthand and typewriting and transcription necessary to become a teacher of commercial subjects either by work in commercial offices during the summer or by such other means as may be practicable for improving his skill and accuracy.

Curriculum

Freshman Year	Semester I	Semester II
Survey and Composition I (Eng. 1y)	3	3
Introduction to the Social Sciences (Soc. Sci. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
Economic Geography (T. and T. 1f)	3	—
American National Government (Pol. Sci. 1s)	—	3
Science (Biological or Physical)	3	3
One from the following groups:		
History, Mathematics, Literature, Foreign Language	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17

Sophomore Year	Semester I	Semester II
Survey and Composition II (Eng. 2f, 3s)	3	3
American History (H. 2y)	3	3
Introduction to Teaching (Ed. 2f, 3s)	2	2
Principles of Economics (Econ. 51y)	3	3
Money and Banking (Finance 53s)	—	2
Electives	4	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17
Junior Year		
Elements of Business (O. and M. 51f)	2	—
Principles of Accounting (Acct. 51y)	4	4
Economics of Consumption (Econ. 136s)	—	3
Elements of Statistics (Stat. 14f)	3	—
History of American Education (Ed. 100f)	2	—
Educational Psychology (Psych. 10f)	3	—
Technic of Teaching (Ed. 5 s)	—	2
Observation of Teaching (Ed. 6s)	—	1
Business Law (O. and M. 101s)	—	3
Electives	2	2
	16	15
Senior Year		
Business Law (O. and M. 102f)	3	—
Commercial Subjects in the High School (Ed. 150f, 151s)	2	2
Supervised Teaching of High School Subjects (Ed. 139 s)	—	2
The Junior High School (Ed. 110f)	3	—
or		
The High School (Ed. 103s)	—	3
Electives	7–10	8–11
	15	15

HOME ECONOMICS EDUCATION

The Home Economics Education curriculum is for students who are preparing to teach vocational or general home economics or to engage in any phase of home economics work which requires a knowledge of teaching methods. It includes studies in all phases of home economics and the allied sciences, with professional training for teaching these subjects. Electives may be chosen from other colleges.

Opportunity for additional training and practice is given through directed teaching, home management, house, and special work and observation of children in the University Nursery School.

Students electing this curriculum may register in the College of Education or the College of Home Economics. Students will be certified for graduation only upon fulfillment of all the requirements of this curriculum.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
General Chemistry (Chem. 1y)	4	4
Textiles (H. E. 71f)	3	—
Design (H. E. 21s)	—	3
Reading and Speaking (Speech 1y)	1	1
Freshman Lecture (H. E. 1y)	1	1
Electives	2	2
Personal Hygiene and Physical Activities (Phys. Ed. 2y and Phys. Ed. 4y)	1	1
	15	15
Sophomore Year		
Introduction to Teaching (Ed. 2f, 3s)	2	2
Costume Design (H. E. 24f)	3	—
Clothing (H. E. 11s)	—	3
Foods (H. E. 31y)	3	3
Elementary Physics (Phys. 3y)	3	3
Principles of Sociology (Soc. 1f)	3	—
Introductory Botany (Bot. 2s)	—	3
Elements of Organic Chemistry (Chem. 12Ay)	2	2
Community Hygiene and Physical Activities (Phys. Ed. 6y and Phys. Ed. 8y)	2	2
	18	18
Junior Year		
Educational Psychology (Psych. 10f)	3	—
Technic of Teaching (H. E. Ed. 5s)	—	2
Observation of Teaching (H. E. Ed. 6s)	—	1
Household Bacteriology (Bact. 3s)	—	3
Nutrition (H. E. 131f)	3	—
Food Buying and Meal Service (H. E. 137s)	—	3
Management of the Home (H. E. 141f, 142s)	3	3
Advanced Clothing (H. E. 111f)	3	—
Human Anatomy and Physiology (Zool. 15f)	4	—
Demonstrations (H. E. 133s)	—	2
Fundamentals of Economics (Econ. 57s)	—	3
	16	17

	Semester I	Semester II
Senior Year		
Child Study (H. E. Ed. 102f)	3	—
Practice in Management of the Home (H. E. 143s)	—	3
Teaching Secondary Vocational Home Economics (H. E. Ed. 103f)	3	—
Interior Decoration (H. E. 121f, 122s)	3	3
Problems in Teaching Home Economics (H. E. Ed. 106f, 107s)	1	1
The High School (Ed. 103s)	—	3
Electives	4	5
	—	—
	14	15

Electives should include one course each in History and English.

INDUSTRIAL EDUCATION

The program of studies in Industrial Education provides: (1) a four-year curriculum leading to the degree of Bachelor of Science in Industrial Education; (2) a program of professional courses to prepare teachers to meet the certification requirements in vocational and occupational schools; (3) a program of courses for the improvement of teachers in service.

I. Four-year Curriculum in Industrial Education.

The entrance requirements are the same as for the other curricula offered in the University. (See page 53.) Experience in some trade or industrial activity will benefit students preparing to teach industrial subjects.

This curriculum is designed to prepare both trade and industrial shop and related teachers, and teachers of industrial arts. There is sufficient latitude of electives so that a student may also meet certification requirements in some other high school subject.

Students entering an Industrial Education curriculum must register in the College of Education.

This curriculum, with limited variations according to the needs of the two groups, is so administered as to provide: (A) a four-year pre-service curriculum for students in residence; (B) a four-year curriculum for teachers in service.

A. Curriculum for Students in Residence

	Semester I	Semester II
Freshman Year		
Mechanical Drawing (Ind. Ed. 1f, 2s)	2	2
Elementary Woodworking (Ind. Ed. 3f)	3	—
Advanced Woodworking (Ind. Ed. 4s)	—	3
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
Elements of College Mathematics (Math. 8f, 10s)	3	3
History or Social Science	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
	16	16
Sophomore Year		
Sheet Metal Work (Ind. Ed. 5f)	2	—
Art Metal Work (Ind. Ed. 6s)	—	2
Architectural Drawing (Ind. Ed. 7y)	1	1
Electricity (Ind. Ed. 8y)	2	2
Pictorial Geometry (Math. 18y)	2	2
Survey and Composition II (Eng. 2f, 3s)	3	3
Chemistry (Chem. 3y or 1y)	3–4	3–4
Introduction to Teaching (Ed. 2f, 3s)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	17–18	17–18
Junior Year		
Elementary Machine Shop (Ind. Ed. 9s)	—	2
Cold Metal Work (Ind. Ed. 10f)	2	—
Foundry (Ind. Ed. 11f)	1	—
Forge Practice (Ind. Ed. 12f)	1	—
Essentials of Design (Ind. Ed. 160y)	1	1
Educational Psychology (Psych. 10f)	3	—
Technic of Teaching (Ed. 5s)	—	2
Observation of Teaching (Ed. 6s)	—	1
Industrial Education in the High School (Ind. Ed. 162s)	—	2
Elementary Physics (Phys. 3y)	3	3
History or Social Science	3	3
Electives	3	3
	17	17

	Semester I	Semester II
Senior Year		
Advanced Machine Shop (Ind. Ed. 13f)	2	—
Shop Organization and Management (Ind. Ed. 164s)	—	2
Educational Measurements (Ed. 105f)	3	—
Supervised Teaching of High School Subjects: Industrial Education (Ed. 139f or s)	2	or 2
History of American Education (Ed. 100f)	2	—
Occupations, Guidance, and Placement (Ind. Ed. 163f)	2	—
Evolution of Modern Industry (Ind. Ed. 165f, 166s)	2	2
Electives	3–5	10–12
	16	16

B. Curriculum for Teachers in Service

The requirements in this curriculum for the B. S. degree in Industrial Education are quantitatively the same as for Curriculum A, except that the military-physical training and speech requirements are waived. In summary the distribution is approximately as follows:

English	12 semester hours
History and the Social Sciences	16 semester hours
Mathematics and Science	20 semester hours
Shop and Drawing	30 semester hours
Education	24 semester hours
Electives	26 semester hours
	128 semester hours

In the mathematics and science group, and in the history and social science group, there is reasonable latitude for individual choice, but courses in mathematics as related to shopwork and courses in American history and government are required.

Program for Vocational, Occupational, and Shop Center Teachers

This curriculum is designed for persons who have had experience in some trade or industry or in the teaching of shopwork.

Applicants for admission to this curriculum must have as a minimum requirement an elementary school education or its equivalent. The curriculum is prescribed, but is administered flexibly in order that it may be adjusted to the needs of students.

To meet the needs for industrial teacher-training in Baltimore and in other industrial centers, in-service courses are offered. The work of these courses deals principally with the analysis and classification of trade knowledge for instructional purposes, methods of teaching, observation and practice of teaching, psychology of trade and industrial education, and occupational information, guidance, and placement.

Completion of eight teacher-training courses which require, in general, two years of two hundred forty clock hours, entitles one to a full three-

year vocational teacher's certificate in the State of Maryland, and to a special diploma from the College of Education of the University of Maryland.

Courses for Teachers in Service

Courses are offered for teachers in service who are seeking to satisfy requirements for promotion.

A special announcement of the in-service courses in Baltimore is issued in August of each year. This may be obtained from the office of the Registrar either in Baltimore or in College Park.

PHYSICAL EDUCATION

The Physical Education curricula are designed to prepare teachers of physical education for the high schools and leaders for recreational programs. With the electives provided, it is possible to meet the certification requirements in other high school subjects as well as in physical education.

These curricula include separate courses for men and for women. Some of the courses are open to both men and women. (See Sec. III, page 294.) Variations for men and for women are shown in the curricula outlined below.

A standard uniform costing between five and ten dollars must be purchased by students electing the curricula.

Upon satisfactory completion of either curriculum the degree of Bachelor of Science will be conferred.

Students electing either of these curricula must register in the College of Education.

General Requirements

The general requirements are the same as for Arts and Science Education (see page 150), except that a foreign language is not required, and twenty semester hours of science are required as scheduled.

Curriculum

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
Introductory Zoology (Zool. 2f)	3	—
Introductory Botany (Bot. 2s)	—	3
Introduction to the Social Sciences (Soc. Sci. 1y)	3	3
From the following: History, Foreign Language, Mathematics, Home Economics, Industrial Education	3	3
Women		
Dance I (Phys. Ed. 10y)	1	1
Athletics I: W (Phys. Ed. 12y)	2	2
Men		
Basic R. O. T. C. (M. I. 1y)	1	1
Athletics I: M (Phys. Ed. 5y)	2	2
	16	16

	Semester I	Semester II
Sophomore Year		
Introduction to Teaching (Ed. 2f, 3s)	2	2
Survey and Composition II (Eng. 2f, 3s)	3	3
Elementary Physics (Phys. 3y)	3	3
Human Anatomy and Physiology (Zool. 15f)	4	—
General Bacteriology (Bact. 1s)	—	4
Hygiene (Phys. Ed. 11f)	2	—
Physical Education I (Phys. Ed. 20s)	—	2
Women		
Dance II (Phys. Ed. 14y)	1	1
Athletics II: W (Phys. Ed. 22y)	2	2
Men		
Basic R. O. T. C. (M. I. 2y)	2	2
Gymnastics I (Phys. Ed. 15y)	1	1
	17	17
Junior Year—General Option		
Educational Psychology (Psych. 10f)	3	—
Technic of Teaching (Ed. 5s)	—	2
Observation of Teaching (Ed. 6s)	—	1
Physiology of Exercise (Phys. Ed. 125f)	2	—
Nature of Play (Phys. Ed. 132s)	—	2
Accident Prevention (Phys. Ed. 13f)	1	—
First Aid (Phys. Ed. 16s)	—	1
Dance III (Phys. Ed. 26y)	1	1
Physical Activities III (Phys. Ed. 52y)	1	1
Electives	7	7
Women		
Dance IV (Phys. Ed. 28f)	1	—
Dance V (Phys. Ed. 30s)	—	1
Men		
Athletics III: M (Phys. Ed. 113y)	1	1
	16	16

	Semester I		Semester II
Senior Year—General Option			
The Junior High School (Ed. 110f) or	3		—
The High School (Ed. 103s)	—		3
Educational Measurements (Ed. 105f)	3		—
Supervised Teaching (Ed. 139f or s)	2	or	2
Teaching Health (Ed. 145s)	—		2
Recreation IV (Phys. Ed. 137f)	2		—
Physical Education IV (Phys. Ed. 144s)	—		2
Physical Education in the High School (Ed. 142f)	2		—
Electives	2–7		5–10
Women			
Athletics IV: W (Phys. Ed. 114y)	1		1
Men			
Physical Education Practice (Phys. Ed. 119y)	1		1
	15		15
Junior Year—Recreation Option			
Educational Psychology (Psych. 10f)	3		—
Physiology of Exercise (Phys. Ed. 125f)	2		—
Nature of Play (Phys. Ed. 132s)	—		2
Recreation I (Phys. Ed. 131f)	3		—
Recreation II (Phys. Ed. 133s)	—		3
Accident Prevention (Phys. Ed. 13f)	1		—
First Aid (Phys. Ed. 16s)	—		1
Dance III (Phys. Ed. 26y)	1		1
Physical Activities III (Phys. Ed. 52y)	1		1
From the following: History, Sociology, Economics, Music, Art, Industrial Education, Home Economics, or Education	4		7
Women			
Dance IV (Phys. Ed. 28f)	1		—
Dance V (Phys. Ed. 30s)	—		1
Men			
Athletics III: M (Phys. Ed. 113y)	1		1
	16		16
Senior Year—Recreation Option			
Recreation III (Phys. Ed. 135f)	3		—
Recreation IV (Phys. Ed. 137f)	2		—
Physical Education IV (Phys. Ed. 144s)	—		2
Teaching Health (Ed. 145s)	—		2
Methods in Recreation (Ed. 143f)	2		—
Supervised Teaching (Ed. 139f or s)	2	or	2
From the following: History, Sociology, Economics, Music, Art, Industrial Education, or Education	5–7		8–10
Women			
Athletics IV: W (Phys. Ed. 114y)	1		1
Men			
Physical Education Practice (Phys. Ed. 119y)	1		1
	15		15

COLLEGE OF ENGINEERING

S. S. STEINBERG, *Dean.*

The primary purpose of the College of Engineering is to train young men to practice the profession of Engineering. It endeavors at the same time to equip them for their duties as citizens and for careers in public service and in industry.

The new economic conditions with which the engineering graduate will be faced when he goes into practice have emphasized the necessity for the adjustment of engineering curricula in their scope and objectives. It has become evident that greater emphasis than heretofore should be placed on the fundamentals of engineering, and that the engineer's training should include a knowledge of the sciences which deal with human relations and a familiarity with business organization and operation.

Accordingly, our engineering curricula have been revised recently to increase the time devoted to fundamentals and to non-technical subjects, which are a necessary part of the equipment of every educated man, and which are now considered essential to the proper training of engineers because of the practical application of these subjects in professional and business life. It is well recognized that an engineering training affords an efficient preparation for many callings in public and private life outside the engineering profession.

The College of Engineering includes the Departments of Chemical, Civil, Electrical, and Mechanical Engineering. In the Mechanical Engineering Department an aeronautical option is offered in the junior and senior years. In order to give the student time to choose the branch of engineering for which he is best adapted, the freshman year of the several courses is the same. Lectures and conferences are used to guide the student to make a proper selection. The courses differ only slightly in the sophomore year, but in the junior and senior years the students are directed more definitely along professional lines.

Admission Requirements

The requirements for admission to the College of Engineering are, in general, the same as elsewhere described for admission to the undergraduate departments of the University, except as to the requirements in mathematics. See Section I, Admission.

It is possible, however, for high school graduates having the requisite number of entrance units to enter the College of Engineering without the unit of advanced algebra, or the one-half unit of solid geometry, provided such students are prepared to devote their first summer to a course in analytic geometry. The program for such students would be as follows: during the first semester, five hours a week would be devoted to making up advanced algebra and solid geometry; in the second semester, mathematics of the first semester would be scheduled, and the second semester mathe-

matics would be taken in the summer session. Thus, such students, if they passed the course, would be enabled to enter the sophomore year the next fall with their class without loss of time.

Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in chemical, civil, electrical, and mechanical engineering, respectively.

Master of Science in Engineering

The degree of Master of Science in Engineering may be earned by students registered in the Graduate School who hold bachelor degrees in engineering, which represent an amount of preparation and work similar to that required for bachelor degrees in the College of Engineering of the University of Maryland.

Candidates for the degree of Master of Science in Engineering are accepted in accordance with the procedure and requirements of the Graduate School, as will be found explained in the catalogue under the head of Graduate School.

Professional Degrees in Engineering

The degrees of Chemical Engineer, Civil Engineer, Electrical Engineer, and Mechanical Engineer will be granted only to graduates of the University who have obtained a bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have engaged successfully in acceptable engineering work not less than four years after graduation.

2. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Chemical, Civil, Electrical, and Mechanical Engineering.

3. His registration for a degree must be approved at least twelve months prior to the date on which the degree is to be conferred. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.

4. He shall present a satisfactory thesis on an approved subject.

Equipment

The Engineering buildings are provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories, and shops for various phases of engineering work.

Drafting-Rooms. The drafting rooms are fully equipped for practical work. The engineering student must provide himself with an approved drawing outfit, material, and books, the cost of which during the freshman year amounts to $16 to $20.

Chemical Engineering Laboratories. For instruction and research, the Chemical Engineering Department maintains laboratories for (1) General Testing and Control; (2) Unit Operations; (3) Cooperative Research; (4) Graduate Research.

General Testing and Control Laboratory. In this laboratory there is available complete equipment for the chemical and physical testing of water, gases, coal, petroleum, and their by-products; and for general industrial chemicals, both inorganic and organic.

Unit Operations Laboratory. This laboratory contains equipment for the study of fluid flow, heat flow, drying filtration, distillation, evaporation, crushing, grinding, and centrifuging. Organic process equipment includes an autoclave, nitrator, reducer, and mixing kettle. For the study of fluid flow a permanent hydraulic assembly is available, and this includes flow meters of most types.

In the laboratory there is a large column still with a kettle capacity of 100 gallons, equipped for the measurement of temperature and pressure, sampling devices, condensers, and vacuum receivers. This still is so designed that it can be used either as a batch type unit, continuous feed type, direct pot still, steam still, or as a vacuum still. Studies in evaporation can be made on a double effect evaporator, one unit of which is equipped with a horizontal tube bundle and the other with a vertical tube bundle. This evaporator is equipped with vacuum and pressure gauges, stirrer, wet vacuum pump, a condensate pump, and a salt filter with different types of packings in respective sections so that comparative studies may be made. The organic process equipment is all self-driven and designed to afford flexibility in use. Filtration studies may be made either on a large plate and frame press or on the ordinary Sweetland type press. Shop facilities include a lathe, drill press, grinder, welding equipment, and other tools necessary for unit operation and research studies. For grinding there is a jaw crusher, a disc crusher, and a ball mill. A mechanical shaker and standard sieve are available for particle size separation.

Cooperative and Graduate Research Laboratories. These laboratories are arranged to permit the installation of such special equipment as the particular problems under consideration may require. Effort is made to maintain cooperation with the industries of Maryland and the Chemical Engineering activities of the State and Federal governments; for such work important advantages accrue because of the location of the Eastern Experiment Station of the United States Bureau of Mines on the University campus.

Electrical Machinery Laboratories. There is provided a 20 kw. motor-generator set, consisting of a synchronous motor and a compound direct-current generator with motor and generator control panels, to furnish direct current for testing purposes. Through the distribution switchboard, provision is made for distributing to the various laboratories direct current at 125 volts, and alternating current, single-phase, and three-phase, at 110 and 220 volts.

The equipment includes a variety of direct and alternating-current generators and motors, synchronous converter, distribution transformers, induction regulator, control apparatus, and the measuring instruments essential for practical electrical testing. Most of the machines are of modern construction and of such size and design as to give typical performance. Flexibility of operation is provided in several ways: for instance, one of the synchronous machines has the coil terminals brought out to an external connection board, so that the windings may be connected for single-phase, two-phase, or three-phase operation; the machine is also provided with a phase-wound rotor and a squirrel-cage rotor, either of which may be used to replace the synchronous rotor. The synchronous converter is arranged for direct or inverted operation, either single-phase, two-phase, or three-phase. Metering and control boards are provided for rapid change of operating conditions with any machine. A single phase induction regulator with control panel provides voltage regulation for experimental work. There are several types of fractional-horsepower motors. The direct-current machines include several motor-generator sets and motors of various types and sizes for constant-speed and adjustable-speed operation. Storage batteries are available for low constant-voltage testing. Water-cooled Prony brakes are supplied for machine testing. Included in the general test equipment is a fairly complete assortment of ammeters, voltmeters, wattmeters, frequency meters, and two oscillographs.

Illumination Laboratory. The equipment includes electric lamps, shades, and reflectors of various types; a bar photometer for determination of candle-power distribution of incandescent lamps; and four types of portable photometers for the measurement of illumination intensities.

Electrical Measurements and Electronics Laboratory. The equipment of this laboratory consists of secondary standards of potential, resistance, inductance, capacity and time for the comparison measurement of these values. Auxiliary equipment such as batteries, oscillators, amplifiers, bridges and both galvanometers and phone detecting devices is available. Equipment is also available for the experimental study of electric and magnetic fields, non-linear circuit elements and other topics in advanced electricity and magnetism.

The equipment for calibration of meters includes a standard ammeter, voltmeter and watthourmeter which are used in conjunction with the standards of potential and resistance, potentiometers and other apparatus. A five-machine motor-generator set delivers voltage and currents, both alternating and direct, for meter testing.

For work in electronics high-vacuum, gas and vapor filled tubes and photo-tubes are available for the testing of their characteristics, and for the study of their applications in research and industrial circuits. Power supplies for tube operation are provided.

Electrical Communications Laboratory. This laboratory is equipped with artificial lines, oscillators, amplifiers, vacuum-tube voltmeters, a transmission

loss or gain set and miscellaneous circuit elements for the study of the response of passive networks, transmission lines and coupled circuit.

The University maintains an amateur short-wave radio station, under faculty supervision, for members of the Student Radio Society. This station is equipped with a multi-band superheterodyne amateur communications receiver and a 500-watt transmitter adjustable to amateur frequencies.

Mechanical Engineering Laboratories. The apparatus consists of slide valve automatic steam engines equipped with Prony brakes, steam turbine-generator set, Waukesha Diesel engine research unit with electric dynamometer and other accessories, two-stage steam-driver air compressor, gas engines, fans, pumps, indicators, gauges, feed water heaters, steam condensers, tachometers, injectors, flow meters, pyrometers, draft gauges, planimeters, thermometers, and other necessary apparatus and equipment for a mechanical engineering laboratory. A refrigeration unit and a heating and ventilation unit have been installed.

Aeronautical Laboratory. This laboratory is being equipped for practice and research in engines, metal construction, structural tests, vibration and noise, and aerodynamics.

Hydraulics Laboratory. The equipment consists of electrically driven centrifugal pumps, measuring tanks, various types of weirs, venturi meters, nozzles, Pelton water wheel with Prony brake built especially for laboratory use, hook gauges, dial gauges, tachometers, stop watches, and other apparatus necessary for the study of the flow characteristics of water.

Materials Laboratories. Apparatus and equipment are provided for making standard tests on various construction materials, such as sand, gravel, steel, concrete, timber, and brick.

Equipment includes a 300,000-pound hydraulic testing machine, two 100,000-pound universal testing machines, torsion testing machine, hardness tester, abrasion testing machine, rattler, constant temperature chamber, cement-testing apparatus, extensometer and micrometer gauges, and other special devices for ascertaining the elastic properties of different materials.

Special apparatus which has been designed and made in the shops of the University is also made available for student work.

The College of Engineering owns a Beggs deformeter apparatus for the mechanical solution of stresses in structures by use of celluloid models. Equipment is also available for study of models by the photo-elastic method.

Engineering Soils Laboratory. Equipment is available for performing the usual tests on engineering soils. This includes apparatus for grain size analysis, Atterberg limits, permeability, optimum moisture content for compaction, Proctor penetration, and consolidation.

Research Foundation. The National Sand and Gravel Association has, by arrangement with the College of Engineering, established its testing

and research laboratory at the University. The purpose of the Research Foundation thus organized is to make available to the Association additional facilities for its investigational work, and to provide for the College of Engineering additional facilities and opportunities for increasing the scope of its engineering research.

Engineering Experiment Station. The purpose of the Engineering Experiment Station at the University, as well as of the various research laboratories, is to conduct cooperative studies with departments of the State and Federal governments, and with the industries of Maryland. These studies have included traffic surveys over the Maryland State highway system, studies of concrete cores cut from the state roads, and laboratory studies of the elastic properties of concrete.

Cooperative researches now under way in the Engineering Experiment Station include the following projects: reinforced concrete hinge construction, expansion joints for concrete roads, diagonal tension reinforcement for concrete beams, operating effect of size of motor in single phase rural electric lines, electrical wave shaper recorder, and several studies in the design of airplanes.

Machine Shops and Foundry. The machine shops and foundry are well lighted and fully equipped. Shops for wood working, metal, forge, and foundry practice are provided.

The wood-working shop has full equipment of hand and power machinery.

The machine shops are equipped with various types of lathes, planers, milling machines, drill presses, shaper, midget mill, and precision boring head. Equipment is available for gas and electric arc welding.

The shop equipment not only furnishes practice, drill, and instruction for students, but makes possible the complete production of special apparatus for conducting experimental and research work in engineering.

Surveying Equipment. Surveying equipment for plane topographic, and geodetic surveying is provided properly to equip several field parties. A wide variety of surveying instruments is provided, including domestic as well as foreign makes.

Special Models and Specimens. A number of models illustrating various types of highway construction and highway bridges are available.

A wide variety of specimens of the more common minerals and rocks has been collected from various sections of the country, particularly from Maryland.

Engineering Library

In addition to the general University Library, each department maintains a library for reference, and receives the standard engineering magazines. The class work, particularly in advanced courses, requires that students consult special books of reference and current technical literature.

The Davis Library of Highway Engineering and Transport, founded by Dr. Charles H. Davis, President of the National Highways Association, is part of the Library of the College of Engineering. The many books, periodicals, pamphlets, and other items included in this library cover all phases of highway engineering, highway transportation, and highway traffic control.

There has also been donated to the College of Engineering the transportation library of the late J. Rowland Bibbins of Washington, D. C. The books and reports in this library deal with urban transportation problems, including railroads, street cars, subways, busses, and city planning.

Curricula

The normal curriculum of each department is outlined on the following pages. Students are expected to attend and take part in the meetings of the student chapters of the technical engineering societies.

The freshman engineering students are given a special course of lectures by practicing engineers covering the work of the several engineering professional fields. The purpose of this course is to assist the freshman in selecting the particular field of engineering for which he is best adapted. The student is required to submit a brief written summary of each lecture. A series of engineering lectures for upper classmen is also provided. These are given weekly by prominent practicing engineers in the various branches of the profession.

Student branches of the following national technical societies are established in the College of Engineering: American Society of Civil Engineers, American Institute of Electrical Engineers, and American Society of Mechanical Engineers. The student branches meet regularly for the discussion of topics dealing with the various fields of engineering.

A student in the College of Engineering will be certified as a junior when he shall have passed at least 68 semester credit hours with an average grade of C or higher.

Junior and senior students with requisite standing may elect, with the permission of the Dean of the College of Engineering, additional courses not exceeding three credits a semester.

All engineering students are urged to secure work during the summer, particularly in engineering fields.

The proximity of the University to Baltimore and Washington, and to other places where there are large industrial enterprises, offers an excellent opportunity for the engineering student to observe what is being done in his chosen field. An instructor accompanies students on all inspection trips, and the student is required to submit a written report of each trip.

Freshman Curriculum

Freshman Year—Alike for all engineering courses.	*Semester* I	II
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
*College Algebra and Analytic Geometry (Math. 21f, 22s)	4	4
General Chemistry (Chem. 1y)	4	4
Engineering Drawing (Dr. 1f)	2	—
Descriptive Geometry (Dr. 2s)	—	2
Forge Practice (Shop 1s)	—	1
Introduction to Engineering (Engr. 1f)	1	—
†Elective	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
	19	19

CHEMICAL ENGINEERING

Chemical Engineering deals primarily with the industrial and economic transformation of matter. It seeks to assemble and develop information on chemical operations and processes of importance in modern life and to apply this under executive direction, according to engineering methods, for the attainment of economic objectives. Modern chemical research has contributed so much to industrial and social welfare that the field of the chemical engineer may now be said to cover practically every operation in which any industrial material undergoes a change in its chemical identity.

Curriculum

Sophomore Year		
Quantitative Analysis (Chem. 4f)	4	—
Water, Fuels, and Lubricants (Ch. E. 10s)	—	4
Calculus (Math. 23y)	4	4
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elements of Plane Surveying (Surv. 1s)	—	1
Modern Language (French or German)	3	3
General Physics (Phys. 2y)	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	20	21

*A qualifying test is given at the close of the first two weeks to determine whether the student is adequately prepared for Math. 21f. A student failing this test is required to take Math. 1f, a one-semester course without credit.

†The student may elect a course in Social Science, History, Language, or Government. Students who plan to enroll in Chemical Engineering are advised to take German or French.

Junior Year	*Semester* I	II
Applied Mechanics (Phys. 117y)	2	2
Physical Chemistry (Chem. 102Ay)	3	3
Physical Chemistry Laboratory (Chem. 102By)	2	2
Principles of Economics (Econ. 51y)	3	3
Principles of Electrical Engineering (E. E. 102y)	4	4
Elements of Chemical Engineering (Ch. E. 103y)	3	3
*Fuels and their Utilization (Ch. E. 107y) / *Chemical Technology (Ch. E. 108y)	2	2
	19	19
Senior Year		
Elements of Thermodynamics (Chem. 105y)	2	2
Chemical Engineering Seminar (Ch. E. 104y)	1	1
Precision of Measurements (Phys. 101f)	3	—
Advanced Unit Operations (Ch. E. 105y)	5	5
Minor Problems (Ch. E. 106y)	5	8
Fundamentals of Business Administration (O. and M. 110f)	2	—
	18	16

CHEMICAL ENGINEERING-CHEMISTRY

A five-year program in Chemical Engineering and Chemistry, arranged between the College of Engineering and the College of Arts and Sciences, permits students, who so desire, to become candidates for the degrees of Bachelor of Science in Engineering and Bachelor of Science in Arts upon completion of the program outlined below:

Curriculum

Sophomore Year		
Modern Language (French or German)	3	3
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Elementary Organic Chemistry (Chem. 8Ay)	2	2
Elementary Organic Laboratory (Chem. 8By)	2	2
Qualitative Analysis (Chem. 2y)	3	3
Elements of Plane Surveying (Surv. 1s)	—	1
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	21	22

*Student has a choice between Chemical Technology and Fuels.

Junior Year	Semester I	Semester II
Expository Writing (Eng. 5f, 6s)	2	2
Quantitative Analysis (Chem. 6y)	4	4
Water Fuels and Lubricants (Ch. E. 10s)	—	4
Applied Mechanics (Phys. 117y)	2	2
Principles of Economics (Econ. 51y)	3	3
Chemical Technology (Ch. E. 108y)	2	2
Precision of Measurements (Phys. 101f)	3	—
	16	17
Fourth Year		
Physical Chemistry (Chem. 102Ay)	3	3
Physical Chemistry Laboratory (Chem. 102By)	2	2
Principles of Electrical Engineering (E. E. 102y)	4	4
Advanced Organic Chemistry (Chem. 116y)	2	2
Organic Laboratory (Chem. 117y)	1	1
Elements of Chemical Engineering (Ch. E. 103y)	3	3
Fundamentals of Business Administration (O. and M. 110f)	2	—
Public Utilities (Econ. 145s)	—	3
	17	18
Fifth Year		
Elements of Thermodynamics (Chem. 105y)	2	2
Chemical Engineering Seminar (Ch. E. 104y)	1	1
Advanced Unit Operations (Ch. E. 105y)	5	5
Minor Problems (Ch. E. 106y)	5	8
Elective—Social Sciences	3	—
Elective—English	—	2
Advanced Organic Laboratory (Chem. 118y)	1	1
	17	19

CIVIL ENGINEERING

Civil Engineering deals with the design, construction, and maintenance of highways, railroads, waterways, bridges, buildings, water supply and sewerage systems, harbor improvements, dams, and surveying and mapping.

Curriculum

Sophomore Year	Semester I	Semester II
Oral Technical English (Speech 5f)	2	—
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Descriptive Geometry (Dr. 3f)	2	—
Statics and Dynamics (Mech. 1s)	—	3
Plane Surveying (Surv. 2y)	2	3
*Elective	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	20	20
Junior Year		
Advanced Oral Technical English (Speech 6y)	1	1
Fundamentals of Economics (Econ. 57s)	—	3
Engineering Geology (Engr. 101f)	2	—
Strength of Materials (Mech. 101f)	5	—
Hydraulics (C. E. 101s)	—	4
Materials of Engineering (Mech. 103s)	—	2
Principles of Mechanical Engineering (M. E. 112f)	3	—
Principles of Electrical Engineering (E. E. 101s)	—	3
Curves and Earthwork (C. E. 103f)	3	—
Theory of Structures (C. E. 104s)	—	5
Advanced Surveying (Surv. 101f)	4	—
Technical Society	—	—
	18	18
Senior Year		
Advanced Oral Technical English (Speech 7y)	1	1
Fundamentals of Business Administration (O. and M. 110f)	2	—
Engineering Law and Specifications (Engr. 102s)	—	2
Elements of Sanitary Bacteriology (Bact. 4s)	—	1
Elements of Highways (C. E. 105f)	3	—
Concrete Design (C. E. 106y)	4	3
Structural Design (C. E. 107y)	4	3
Municipal Sanitation (C. E. 108y)	3	3
Thesis (C. E. 109y)	1	2
Soils and Foundations (C. E. 110s)	—	3
Technical Society	—	—
	18	18

*The student may elect a course in Social Science, History, Language, or Government.

ELECTRICAL ENGINEERING

Electrical Engineering deals with the generation, transmission, and distribution of electrical energy; electrical transportation, communication, illumination, and manufacturing; and miscellaneous electrical applications in industry, commerce, and home life.

Curriculum

	Semester I	Semester II
Sophomore Year		
Oral Technical English (Speech 5f)	2	—
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Descriptive Geometry (Dr. 3f)	2	—
Elements of Plane Surveying (Surv. 1f)	1	—
Machine Shop Practice (Shop 2f)	1	—
Elements of Electrical Engineering (E. E. 1s)	—	3
Statics and Dynamics (Mech. 1s)	—	3
*Elective	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	20	20
Junior Year		
Advanced Oral Technical English (Speech 6y)	1	1
Fundamentals of Economics (Econ. 57s)	—	3
Differential Equations for Engineers (Math. 114f)	3	—
Strength of Materials (Mech. 102f)	4	—
Hydraulics (C. E. 102s)	—	3
Materials of Engineering (Mech. 103s)	—	2
Direct Currents (E. E. 103f)	5	—
Direct Current Design (E. E. 104f)	1	—
Advanced Electricity and Magnetism (E. E. 105y)	4	4
Alternating Current Circuits (E. E. 106s)	—	5
Technical Society	—	—
	—	—
	18	18

*The student may elect a course in Social Science, History, Language, or Government.

	Semester I	Semester II
Senior Year		
Advanced Oral Technical English (Speech 7y)	1	1
Fundamentals of Business Administration (O. and M. 110f)	2	—
Engineering Law and Specifications (Engr. 102s)	—	2
Alternating Current Machinery (E. E. 107y)	4	4
Alternating Current Design (E. E. 108f)	1	—
Electrical Communications (E. E. 109y)	3	3
*Illumination (E. E. 110f)	3	—
*Electric Railways (E. E. 111f)	3	—
*Electric Power Transmission (E. E. 112s)	—	3
*Engineering Electronics (E. E. 113s)	—	3
Thermodynamics (M. E. 101f)	3	—
Power Plants (M. E. 113s)	—	3
Thesis (E. E. 114y)	1	2
Technical Society	—	—
	—	—
	18	18

MECHANICAL ENGINEERING

Mechanical Engineering deals with the design, construction, and maintenance of machinery and power plants; heating, ventilation, and refrigeration; and the organization and operation of industrial plants.

Curriculum

	Semester I	Semester II
Sophomore Year		
Oral Technical English (Speech 5f)	2	—
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Descriptive Geometry (Dr. 3f)	2	—
Elements of Plane Surveying (Surv. 1s)	—	1
Machine Shop Practice (Shop 3f)	2	—
Statics and Dynamics (Mech. 2s)	—	5
†Elective	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	—	—
	20	20

*Alternates

†The student may elect a course in Social Science, History, Language, or Government.

Junior Year—General	Semester I	II
Advanced Oral Technical English (Speech 6y)	1	1
Fundamentals of Economics (Econ. 57s)	—	3
Differential Equations for Engineers (Math. 114f)	3	—
Strength of Materials (Mech. 101f)	5	—
Hydraulics (C. E. 102s)	—	3
Materials of Engineering (Mech. 103s)	—	2
Principles of Electrical Engineering (E. E. 102y)	4	4
Mechanics of Machinery (M. E. 102y)	2	2
Foundry Practice (Shop 101f)	1	—
Machine Shop Practice (Shop 102s)	—	1
Thermodynamics (M. E. 103y)	2	2
Technical Society	—	—
	—	—
	18	18

Junior Year—Aeronautical Option		
Advanced Oral Technical English (Speech 6y)	1	1
Fundamentals of Economics (Econ. 57s)	—	3
Differential Equations for Engineers (Math. 114f)	3	—
Strength of Materials (Mech. 101f)	5	—
Materials of Engineering (Mech. 103s)	—	2
Foundry Practice (Shop 101f)	1	—
Machine Shop Practice (Shop 102s)	—	1
Principles of Electrical Engineering (E. E. 102y)	4	4
Mechanics of Machinery (M. E. 102y)	2	2
Thermodynamics (M. E. 103y)	2	2
Aerodynamics and Hydrodynamics (M. E. 104s)	—	3
Technical Society	—	—
	—	—
	18	18

Senior Year—General		
Advanced Oral Technical English (Speech 7y)	1	1
Fundamentals of Business Administration (O. and M. 110f)	2	—
Engineering Law and Specifications (Engr. 102s)	—	2
Heating and Ventilation (M. E. 105f)	3	—
Refrigeration (M. E. 106s)	—	3
Prime Movers (M. E. 108y)	4	4
Mechanical Engineering Design (M. E. 109y)	4	3
Mechanical Laboratory (M. E. 110y)	3	3
Thesis (M. E. 107y)	1	2
Technical Society	—	—
	—	—
	18	18

Senior Year—Aeronautical Option	Semester I	II
Advanced Oral Technical English (Speech 7y)	1	1
Fundamentals of Business Administration (O. and M. 110f)	2	—
Engineering Law and Specifications (Engr. 102s)	—	2
Airplane Structure (M. E. 111y)	3	3
Prime Movers (M. E. 108y)	4	4
Mechanical Engineering Design (M. E. 109y)	4	3
Mechanical Laboratory (M. E. 110y)	3	3
Thesis (M. E. 107y)	1	2
Technical Society	—	—
	—	—
	18	18

AGRICULTURE ENGINEERING

A five-year combined program in Agriculture and Engineering, arranged jointly by the College of Agriculture and the College of Engineering, permits students to become candidates for the degree of Bachelor of Science in Agriculture at the end of four years and for the degree of Bachelor of Science in Civil, Electrical, Mechanical, or Chemical Engineering at the end of the fifth year.

Details of this program will be found listed in this catalogue under College of Agriculture, page 83.

BUREAU OF MINES AND CHEMICAL ENGINEERING RESEARCH FELLOWSHIPS IN APPLIED SCIENCE AND ENGINEERING

The University of Maryland, in cooperation with the Bureau of Mines, offers fellowships for research in the field of engineering and applied sciences. Fellows enter upon their duties on July 1, and continue for 12 months, including one month for vacation. Payments under a fellowship are made at the end of each month, and amount to $600 for the year. The University will remit payment of tuition fees, and will grant all fellowship privileges.

Fellows register as students in the Graduate School of the University of Maryland, and become candidates for the degree of Doctor of Philosophy. Class work will be directed by the heads of the departments of instruction, but about half of the time will be spent in research, under the direction of the Bureau of Mines staff.

Appropriate problems in physics, chemistry, chemical engineering, or mathematics will be chosen according to the abilities of the candidates and the interests of the Bureau Divisions. The faculty supervisor will be the Professor of Chemical Engineering of the University of Maryland.

The above fellowships will be known as Bureau of Mines Research Fellowships. The recipients will undertake the solution of definite problems confronting the mineral industries. The research will be performed at the

Eastern Experiment Station of the Bureau of Mines, a large building recently completed on the campus of the University of Maryland in College Park.

To encourage cooperation with the industries of Maryland and to develop research and instruction in Chemical Engineering, the University of Maryland will offer two fellowships in Chemical Engineering. These fellowships will pay a stipend of $500 per year each, and will ordinarily require residence during the university year from September to June.

All the foregoing fellowships are open to graduates of universities and technical colleges who have the proper training in engineering or applied physical sciences, and who are qualified to undertake research work. Preference will be given to men who have already had one year of graduate work, and who have experience in research.

Applications with a certified copy of college record, applicant's photograph, statement of technical and practical experience (if any), and letters from three persons, such as instructors or employers, covering specifically the applicant's character, ability, education, and experience, will be received up to April 1. The application should be addressed to Fellowship Committee, Eastern Experiment Station, Bureau of Mines, United States Department of the Interior, College Park, Maryland.

STANTON WALKER FELLOWSHIP OF THE NATIONAL SAND AND GRAVEL ASSOCIATION RESEARCH FOUNDATION

The University of Maryland, in cooperation with the National Sand and Gravel Association, offers a fellowship for research on appropriate problems related to the sand and gravel industry. Fellows enter upon their duties on July 1, and continue for 12 months, including one month for vacation. Payments under the fellowship are made at the end of each month and amount to $600 for the year.

Fellows register as students in the Graduate School of the University of Maryland. Class work will be directed by the heads of the departments of instruction, but about half of the time will be spent in research work. The faculty supervisor will be the Professor of Civil Engineering of the University of Maryland.

This fellowship is open to graduates in Engineering, from an accredited college or university, who are qualified to undertake graduate study and research work leading to a Master's degree. Applications with a certified copy of college record, applicant's recent photograph, statement of technical and practical experience (if any), and letters from three persons, such as instructors or employers, covering specifically the applicant's character, ability, education, and experience, will be received up to May 1, 1940.

The applications should be addressed: Dean, College of Engineering, University of Maryland, College Park, Md.

BUREAU OF MINES LECTURES

Under the auspices of the University of Maryland, the Bureau of Mines of the United States Department of the Interior, which maintains its Eastern Experiment Station on the campus at College Park, will offer an interesting series of public lectures in the auditorium of the College of Engineering throughout the University year. The lectures, five in number, will be given monthly, on the fourth Tuesday of each month, beginning in October and ending in April, except December and January, at 8:15 P. M. The speakers will be outstanding members of the staff of the Bureau's various experiment stations throughout the United States, selected because of broad and varied experience in fields of wide technical and public interest, involving fundamental and pioneering research. Although the lectures are arranged in connection with the new work of the University in chemical engineering, they cover a broad field of science, technology, and economics.

There will be no charge for admission. The general public as well as the faculty and student body are cordially invited.

COLLEGE OF HOME ECONOMICS

M. MARIE MOUNT, *Dean*

To give a young woman the best personal development and a preparation for home making is the chief aim of home economics education. The second aim is professional—a preparation for earning a livelihood. For the majority of women who must earn a living home economics offers many opportunities as teachers or extension specialists in home economics; directors of food service in restaurants, cafeterias and hospitals; as textile specialists or clothing specialists in department stores; as home economists with commercial firms, radio stations or magazines and newspapers.

Departments

For administrative purposes the College of Home Economics is organized into the Departments of Foods and Nutrition; Textiles, Clothing, and Art; and Home and Institution Management.

Facilities

The new home economics building increases greatly the classroom and laboratory facilities. These increased facilities will permit expansion of work now being offered and the addition of new lines of work. The college maintains a home management house, in which students gain practical experience in home-making during their senior year.

Baltimore and Washington afford unusual opportunities for trips, additional study, and practical experience pertaining to the various phases of home economics.

Professional Organizations

The Home Economics Club, to which all home economics students are eligible, is affiliated with the American Home Economics Association.

Omicron Nu, a national home economics honor society, established Alpha Zeta chapter at the University of Maryland, November, 1937. Students of high scholarship may be elected to membership.

Degree

The degree of Bachelor of Science is conferred for the satisfactory completion of four years of prescribed courses, of 128 semester hours. In accordance with the University policy, not less than three-fourths of the credits for graduation must be earned with grades of A, B, or C.

Curricula

When a student has attained junior standing* she may continue with the non-professional general home economics curriculum, or elect one of the following professional curricula or a combination of curricula: foods and nutrition, institution management, home economics extension, textiles and clothing and practical art. A student who wishes to teach home economics may register in home economics education in the College of Home Economics, or in the College of Education (see home economics education).

Following are the outlines of all curricula.

Curriculum—General Home Economics

	Semester I	Semester II
Freshman Year		
Survey and Composition I (Eng. 1y)	3	3
†General or Introductory Chemistry (Chem. 1y or 3y)	3–4	3–4
Textiles (H. E. 71f)	3	—
Design (H. E. 21s)	—	3
Reading and Speaking (Speech 1y)	1	1
Home Economics Lectures (H. E. 1y)	1	1
‡Electives	2–3	2–3
Personal Hygiene and Physical Activities (Phys. Ed. 2y and 4y)	1	1
	15–16	15–16
§*Sophomore Year*		
Costume Design (H. E. 24f)	3	—
Clothing (H. E. 11s)	—	3
Foods (H. E. 31y)	3	3
Elementary Physics (Phys. 3y)	3	3
Principles of Sociology (Soc. 1f)	3	—
Fundamentals of Economics (Econ. 57s)	—	3
‖Electives	3	3
Community Hygiene and Physical Activities (Phys. Ed. 6y and 8y)	2	2
	17	17

*64 credit hours with a C grade average.

†Chem. 1y is required for all curricula with the exception of general home economics and practical art.

‡At least one year of French is required of students majoring in practical art.

§Organic Chemistry (Chem. 12Ay and 12By) is required of students electing the foods and nutrition, textiles and clothing, institution management, or home economics extension curriculum.

‖In addition to the courses as prescribed, one course in psychology is required, and in all curricula except practical art a course in one of the following sciences: zoology, botany, physiology, or genetics. A total of 12 hours of science is required in the practical art curriculum. Another science may be substituted for physics in this curriculum.

	Semester I	Semester II
Junior Year		
Elements of Nutrition (H. E. 32f) or Nutrition (H. E. 131f)	3	—
Food Buying and Meal Service (H. E. 137s)	—	3
Management of the Home (H. E. 141f, 142s)	3	3
Advanced Clothing (H. E. 111f)	3	—
Household Bacteriology (Bact. 3s)	—	3
Interior Decoration (H. E. 121f, 122s)	3	3
Electives	4–5	4–5
	16–17	16–17
Senior Year		
Child Study (H. E. Ed. 102f)	3	—
Practice in Management of the Home (H. E. 143s)	—	3
Electives	12	12
	15	15

Curriculum—Foods and Nutrition

Junior Year		
General Physiological Chemistry (Chem. 108f)	4	—
Nutrition (H. E. 131f)	3	—
Dietetics (H. E. 132s)	—	3
Management of the Home (H. E. 141f, 142s)	3	3
Household Bacteriology (Bact. 3s)	—	3
Food Buying and Meal Service (H. E. 137s)	—	3
Interior Decoration (H. E. 121f, 122s)	3	3
Electives	4	2
	17	17
Senior Year		
Child Study (H. E. Ed. 102f)	3	—
Practice in Management of the Home (H. E. 143s)	—	3
Experimental Foods (H. E. 135f)	4	—
Demonstrations (H. E. 133s)	—	2
Advanced Foods (H. E. 134s)	—	3
Electives	8	7
	15	15

***Curriculum—Institution Management**

	Semester I	Semester II
Junior Year		
General Physiological Chemistry (Chem. 108f)	4	—
Household Bacteriology (Bact. 3s)	—	3
Nutrition (H. E. 131f)	3	—
Dietetics (H. E. 132s)	—	3
Management of the Home (H. E. 141f, 142s)	3	3
Institution Management (H. E. 144y)	3	3
Technic of Teaching (H. E. Ed. 5s)	—	2
Observation of Teaching (H. E. Ed. 6s)	—	1
Food Buying and Meal Service (H. E. 137s)	—	3
Electives	4	—
	—	—
	17	18
Senior Year		
Practice in Management of the Home (H. E. 143f)	3	—
Child Study (H. E. Ed. 102s)	—	3
Experimental Foods (H. E. 135f)	4	—
Advanced Institution Management (H. E. 146s)	—	3
Institution Cookery (H. E. 147f)	3	—
Interior Decoration (H. E. 121f, 122s)	3	3
Mental Hygiene (Psych. 130s)	—	3
Diet in Disease (H. E. 138s)	—	3
Electives	2	—
	—	—
	15	15

Curriculum—Home Economics Extension

Junior Year		
Nutrition (H. E. 131f)	3	—
Dietetics (H. E. 132s)	—	3
Management of the Home (H. E. 141f, 142s)	3	3
Advanced Clothing (H. E. 111f)	3	—
Household Bacteriology (Bact. 3s)	—	3
Educational Psychology (Psych. 10f)	3	—
Technic of Teaching (H. E. Ed. 5s)	—	2
Observation of Teaching (H. E. Ed. 6s)	—	1
Demonstrations (H. E. 133f)	2	—
Food Buying and Meal Service (H. E. 137s)	—	3
Interior Decoration (H. E. 121f, 122s)	3	3
	—	—
	17	18

*Training for a hospital dietitian requires one year of graduate study in a hospital offering a course approved by the American Dietetic Association. The institution management curriculum meets the academic requirements for entrance to such a course.

A student planning to do institutional work other than hospital dietetics is not required to take Technic of Teaching (H. E. Ed. 5s), Observation of Teaching (H. E. Ed. 6s) and Diet in Disease (H. E. 138s).

Senior Year	*Semester* I	II
Child Study (H. E. Ed. 102f)	3	—
Practice in Management of the Home (H. E. 143s)	—	3
Mental Hygiene (Psych. 130s)	—	3
Human Physiology (Zool. 16s)	—	3
Methods in Home Economics Extension (H. E. 151s)	—	3
Rural Life and Education (R. Ed. 110s)	—	3
*Electives	12	—
	—	—
	15	15

Curriculum—Textiles and Clothing

Junior Year		
Advanced Clothing (H. E. 111f)	3	—
Advanced Textiles (H. E. 171s)	—	3
Chemistry of Textiles (Chem. 14s)	—	3
†Nutrition (H. E. 131f) or Elements of Nutrition (H. E. 32f)	3	—
Management of the Home (H. E. 141f, 142s)	3	3
Household Bacteriology (Bact. 3s)	—	3
Interior Decoration (H. E. 121f, 122s)	3	3
Electives	5	2
	—	—
	17	17

Senior Year		
Problems in Clothing (H. E. 112s)	—	3
Problems in Textiles (H. E. 172f)	4	—
Practice in Management of the Home (H. E. 143f)	3	—
Child Study (H. E. Ed. 102s)	—	3
Electives	8	9
	—	—
	15	15

*Electives should include a course in Poultry and in Dairying.
†Chemistry 12 Ay and 12 By is prerequisite for Nutrition H. E. 131f.

Curriculum—Practical Art

Junior Year	*Semester* I	II
Human Physiology (Zool. 16s)	—	3
Art in Ancient Civilization (Art. 1f, 2s)	2	2
Interior Decoration (H. E. 121f, 122s)	3	3
Management of the Home (H. E. 141f, 142s)	3	3
Elements of Nutrition (H. E. 32f)	3	—
Introduction to Psychology (Psych. 1f)	3	—
Personnel (Psych. 161s)	—	3
Advanced Clothing (H. E. 111f)	3	—
Electives	—	3
	—	—
	17	17

Senior Year		
Advanced Design (H. E. 123f, 124s)	3	3
Elements of Business (O. and M. 51f)	2	—
Practice in Management of the Home (H. E. 143f)	3	—
Child Study (H. E. Ed. 102s)	—	3
Merchandise Display (H. E. 125s)	—	2
Electives	7	7
	—	—
	15	15

THE GRADUATE SCHOOL

C. O. APPLEMAN, *Dean.*

The Graduate School Council

H. C. BYRD, LL.D., President of the University.
C. O. APPLEMAN, Ph.D., Dean of the Graduate School, Chairman.
HAROLD BENJAMIN, Ph.D., Professor of Education.
L. B. BROUGHTON, Ph.D., Professor of Chemistry.
E. N. CORY, Ph.D., Professor of Entomology.
H. F. COTTERMAN, Ph.D., Professor of Agricultural Education.
C. B. HALE, Ph.D., Professor of English.
L. V. HOWARD, Ph.D., Professor of Political Science.
L. H. JAMES, Ph.D., Professor of Bacteriology.
DEVOE MEADE, Ph.D., Professor of Animal and Dairy Husbandry.
M. MARIE MOUNT, M.A., Professor of Home and Institution Management.
H. J. PATTERSON, D.Sc. Dean Emeritus of Agriculture.
W. S. SMALL, Ph.D., Professor of Education.
T. H. TALIAFERRO, C. E., Ph.D., Professor of Mathematics.
A. E. ZUCKER, Ph.D., Professor of Modern Languages.
WALTER H. HARTUNG, Ph.D., Professor of Pharmaceutical Chemistry (Baltimore).
EDUARD UHLENHUTH, Ph.D., Professor of Gross Anatomy (Baltimore).

General Information

HISTORY AND ORGANIZATION

In the earlier years of the institution the Master's degree was frequently conferred, but the work of the graduate students was in charge of the departments concerned, under the supervision of the general faculty. The Graduate School of the University of Maryland was established in 1918, and organized graduate instruction leading to both the Master's and the Doctor's degree was undertaken. The faculty of the Graduate School includes all members of the various faculties who give instruction in approved graduate courses. The general administrative functions of the graduate faculty are delegated to a Graduate Council, of which the Dean of the Graduate School is chairman.

LIBRARIES

In addition to the resources of the University libraries, the great libraries of the National Capital are easily available for reference work. Because of the proximity of these libraries to College Park they are a valuable asset to research and graduate work at the University of Maryland.

The library building at College Park contains a number of seminar rooms and other desirable facilities for graduate work.

THE GRADUATE CLUB

The graduate students maintain an active Graduate Club. Several meetings for professional and social purposes are held during the year. Students working in different departments have an opportunity to become acquainted with one another and thus profit by the broad cultural values derived from contacts with fellow students working in different fields.

GENERAL REGULATIONS

ADMISSION

Graduates from recognized colleges regarded as standard by the institution and by regional or general accrediting agencies are admitted to the Graduate School. The applicant shall present an official transcript of his collegiate record which for unconditional admission shall show creditable completion of an undergraduate major in the subject chosen for specialization in the Graduate School.

Application blanks for admission to the Graduate School are obtained from the office of the Dean, T-214, Agriculture Building. After approval of the application, a matriculation card, signed by the Dean, is issued to the student. This card permits one to register in the Graduate School. After payment of the fee, the matriculation card is stamped and returned. It is the student's certificate of membership in the Graduate School, and may be called for at any succeeding registration.

Admission to the Graduate School does not necessarily imply admission to candidacy for an advanced degree.

REGISTRATION

All students pursuing graduate work in the University, even though they are not candidates for higher degrees, are required to register in the Graduate School at the beginning of each semester. Students taking graduate work in the summer session are also required to register in the Graduate School at the beginning of each session. In no case will graduate credit be given unless the student matriculates and registers in the Graduate School.

The program of work for the semester or the summer session is arranged by the student with the major department and entered upon two course cards, which are signed first by the professor in charge of the student's major subject and then by the Dean of the Graduate School. One card is retained by the Dean. The student takes the other card, and in case of a new student, also the matriculation card, to the Registrar's office, where the registration is completed. Students will not be admitted to graduate courses until the Registrar has certified to the instructor that registration has been completed. Course cards may be obtained at the Registrar's office or at the Dean's office. The heads of departments usually keep a supply of these cards in their respective offices.

GRADUATE COURSES

Graduate students must elect for credit in partial fulfillment of the requirements for higher degrees only courses designated *For Graduates*, or *For Graduates and Advanced Undergraduates*. Graduate students may elect courses numbered from 1 to 99 in the general catalogue but graduate credit will not be allowed for these. Students with inadequate preparation may be required to take some of these courses. No credit toward graduate degrees may be obtained by correspondence or extension study. Courses that are audited are registered for in the same way and at the same fees as other courses.

PROGRAM OF WORK

The professor who is selected to direct a student's thesis work is the student's adviser in the formulation of a graduate program, including suitable minor work, which is arranged in cooperation with the instructors. To encourage thoroughness in scholarship through intensive application, graduate students in the regular sessions are limited to a program of thirty credit hours for the year, including thesis work, which is valued at not less than six hours.

SUMMER GRADUATE WORK

Graduate work in the summer session may be counted as residence toward an advanced degree.

By special arrangement, graduate work may be pursued during the entire summer in some departments. Such students as graduate assistants, or others who may wish to supplement work done during the regular year, may satisfy one-third of an academic year's residence by full-time graduate work for eleven or twelve weeks, provided satisfactory supervision and facilities for summer work are available in their special fields.

The University publishes a special bulletin giving full information concerning the summer session and the graduate courses offered therein. The bulletin is available upon application to the Registrar of the University.

GRADUATE WORK IN PROFESSIONAL SCHOOLS AT BALTIMORE

Graduate courses and opportunities for research are offered in some of the professional schools at Baltimore. Students pursuing graduate work in the professional schools must register in the Graduate School, and meet the same requirements and proceed in the same way as do graduate students in other departments of the University.

The graduate courses in the professional schools are listed in the Graduate School Announcements.

GRADUATE WORK BY SENIORS IN THIS UNIVERSITY

Seniors who have completed all their undergraduate courses in this University by the end of the first semester, and who continue their residence in the University for the remainder of the year, are permitted to register in the Graduate School and secure the privileges of its membership, even though the bachelor's degree is not conferred until the close of the year.

A senior of this University who has nearly completed the requirements for the undergraduate degree may, with the approval of his undergraduate Dean and the Dean of the Graduate School, register in the undergraduate college for graduate courses, which may later be transferred for graduate credit toward an advanced degree at this University, but the total of undergraduate and graduate courses must not exceed fifteen credits for the semester. Excess credits in the senior year cannot later be transferred unless such prearrangement has been made. Graduate credits earned during the senior year may not be used to shorten the residence period required for advanced degrees.

ADMISSION TO CANDIDACY FOR ADVANCED DEGREES

Application for admission to candidacy for the Master's and for the Doctor's degree is made on application blanks which are obtained at the office of the Dean of the Graduate School. These are filled out in duplicate and after the required endorsements are obtained, the applications are acted upon by the Graduate Council. An official transcript of the candidate's undergraduate record and any graduate courses completed at other institutions must be filed in the Dean's office before the application can be considered.

Admission to candidacy in no case assures the student of a degree, but merely signifies he has met all the formal requirements and is considered by his instructors sufficiently prepared and able to pursue such graduate study and research as are demanded by the requirements of the degree sought. The candidate must show superior scholarship by the type of graduate work already completed.

Application for admission to candidacy is made at the time stated in the sections dealing with the requirements for the degree sought.

REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

Advancement to Candidacy. Each candidate for the Master's degree is required to make application for admission to candidacy not later than the date when instruction begins for the second semester of the academic year in which the degree is sought (or in case of a summer school student at the end of the third summer's residence), but not until at least twelve semester course hours of graduate work have been completed. An average grade of "B" in all major and minor subjects is required.

Minimum Residence. A residence of at least one full academic year, or its equivalent, at this institution, is required. By carrying approximately six semester hours of graduate work for four summer sessions at this institution, a student may fulfill the residence requirements for the degree of Master or Arts or Master of Science, provided that the greater part of the thesis work can be done under direction during the periods between summer sessions. In some instances a fifth summer of residence may be required in order that a satisfactory thesis may be completed.

Course Requirements. A minimum of twenty-four semester hours, exclusive of research, with an average "B" grade in courses approved for graduate credit, is required for the degrees of Master of Arts and Master of Science. If the student is inadequately prepared for the required graduate courses, either in the major or minor subjects, additional courses may be required to supplement the undergraduate work. Of the twenty-four hours required in graduate courses, not less than twelve semester hours and not more than sixteen semester hours must be earned in the major subject. The remaining credits must be outside the major subject and must comprise a group of coherent courses intended to supplement and support the major work. Not less than one-half of the total required course credits for the degree, or a minimum of twelve, must be selected from courses numbered 200 or above. The entire course of study must constitute a unified program approved by the student's major adviser and by the Dean of the Graduate School.

Transfer of Credit. Credit, not to exceed six hours, obtained at other recognized institutions may be transferred and applied to the course requirements of the Master's degree, provided that the work was of graduate character, and provided that it is approved for inclusion in the student's graduate program at the University of Maryland. This transfer of credit is approved by the Graduate Council when the student is admitted to candidacy for the degree. Acceptance of the transferred credit does not reduce the minimum residence requirements. The candidate is subject to final examination by this institution in all work offered for the degree.

Thesis. In addition to the twenty-four semester hours in graduate courses a satisfactory thesis is required of all candidates for the degrees of Master of Arts and Master of Science. It must demonstrate the student's ability to do independent work and it must be acceptable in literary style and composition. It is assumed that the time devoted to thesis work will be not less than the equivalent of six semester hours earned in graduate courses. With the approval of the student's major professor and the Dean of the Graduate School, the thesis in certain cases may be prepared *in absentia* under direction and supervision of a member of the faculty of this institution.

The original copy of the thesis must be deposited in the office of the Graduate School not later than two weeks before commencement. An abstract of the contents of the thesis, 200 to 250 words in length, must accompany it. A manual giving full directions for the physical make-up of the thesis is in the hands of each professor who directs thesis work, and should be consulted by the student before the typing of the manuscript is begun. Individual copies of this manual may be obtained by the student at the Dean's office at nominal cost.

Final Examination. The final oral examination is conducted by a committee appointed by the Dean of the Graduate School. The student's adviser acts as the chairman of the committee. The other members of the

committee are persons under whom the student has taken most of his major and minor courses. The chairman and the candidate are notified of the personnel of the examining committee at least one week prior to the period set for oral examinations. The chairman of the committee selects the exact time and place for the examination and notifies the other members of the committee and the candidate. The examination should be conducted within the dates specified and a report of the committee sent to the Dean as soon as possible after the examination. A special form for this purpose is supplied to the chairman of the committee. Such a report is the basis upon which recommendation is made to the faculty that the candidate be granted the degree sought. The period for the oral examination is usually one hour.

The examining committee also approves the thesis, and it is the candidate's obligation to see that each member of the committee has ample opportunity to examine a copy of the thesis prior to the date of the examination.

A student will not be admitted to final examination until all other requirements for the degree have been met.

REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

Course Requirements. Thirty hours of course work are required, which may include courses in departments other than Education not to exceed one-half of the total thirty hours, such courses to be selected in conformity with the student's special needs as agreed upon by the student and his adviser. Of the thirty hours, not less than one-half must be on the 200 level.

At least four of the thirty hours must be seminar work, which shall include one or more seminar papers in the student's major field of concentration in the Department of Education. (A thesis may be substituted for the seminar work if the student so desires.)

Included in the program must be courses in educational statistics and in procedure of educational research.

A comprehensive written examination is required.

A maximum of six hours of graduate credit may be earned in a summer session, and not more than six hours may be transferred from another institution.

The requirements in regard to advancement to candidacy, transfer of credits, and final oral examination are the same as for the degrees of Master of Arts and Master of Science.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Advancement to Candidacy. Candidates for the Doctor's degree must be admitted to candidacy not later than one academic year prior to the granting of the degree. Applications for admission to candidacy for the Doctor's degree are filled out by the student and submitted to his major de-

partment for further action and transmission to the Dean of the Graduate School not later than the first Wednesday in October of the academic year in which the degree is sought.

The applicant must have obtained from the head of the Modern Language Department a statement that he possesses a reading knowledge of French and German. Preliminary examinations or such other substantial tests as the departments may elect are also required for admission to candidacy.

Residence. Three years of full-time resident graduate study are required. The first two of the three years may be spent in other institutions offering standard graduate work. On a part-time basis the time needed will be correspondingly increased. All work at other institutions that is transferred in partial fulfillment of the requirements for the Ph.D. degree is approved by the Graduate Council, upon recommendation of the department concerned, when the student is admitted to candidacy for the degree. The Doctor's degree is not given merely as a certificate of residence and work, but is granted only upon sufficient evidence of high attainments in scholarship, and ability to carry on independent research in the special field in which the major work is done.

Major and Minor Subjects. The candidate must select a major and one or two closely related minor subjects. The minor work required varies from twenty-four to thirty hours at the discretion of the department concerned. The remainder of the required residence is devoted to intensive study and research in the major field. The amount of required course work in the major subject will vary with the department and the individual candidate. The candidate must register for a minimum of twelve semester hours of research.

Thesis. The ability to do independent research must be shown by a dissertation on some topic connected with the major subject. The original typewritten copy and one clear carbon copy of the thesis, together with an abstract of the contents, 250 to 500 words in length, must be deposited in the office of the Dean at least three weeks before commencement. One or two extra copies of the thesis should be provided for use of members of the examining committee prior to the date of the final examination. The thesis is later printed in such form as the committee and the Dean may approve, and fifty copies are deposited in the University library.

A manual giving full directions for the physical make-up of the thesis is in the hands of each professor who directs thesis work and should be consulted by the student before typing of the thesis is begun. Students may obtain copies of this manual at the Dean's office, at nominal cost.

Final Examination. The final oral examination is held before a committee appointed by the Dean. One member of this committee is a representative of the graduate faculty who is not directly concerned with the student's graduate work. One or more members of the committee may be persons from other institutions who are distinguished scholars in the student's major field.

The duration of the examination is approximately three hours, and covers the research work of the candidate as embodied in his thesis, and his attainments in the fields of his major and minor subjects. The other detailed procedures are the same as those stated for the Master's examination.

RULES GOVERNING LANGUAGE EXAMINATIONS FOR CANDIDATES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

1. A candidate for the Doctor's degree must show in a written examination that he possesses a reading knowledge of French and German. The passages to be translated will be taken from books and articles in his specialized field. Some 300 pages of text from which the applicant wishes to have his examination chosen should be submitted to the head of the Department of Modern Languages at least three days before the examination. The examination aims to test ability to use the foreign language for research purposes. It is presumed that the candidate will know sufficient grammar to distinguish inflectional forms and that he will be able to translate readily in two hours about 500 words of text with the aid of a dictionary.

2. Application for admission to these tests must be filed in the office of the Department of Modern Languages at least three days in advance of the tests.

3. No penalty is attached to failure in the examination, and the unsuccessful candidate is free to try again at the next date set for these tests.

4. Examinations are held near the office of the Department of Modern Languages, on the last Wednesday in September and the first Wednesdays in February and June, at 2 P. M.

GRADUATE FEES

The fees paid by graduate students are as follows:

All Students:

A matriculation fee of $10.00. This is paid once only, upon admission to the Graduate School.

A diploma fee (Master's degree), $10.00.

A graduate fee, including hood (Doctor's degree), $20.00.

College Park:

A fixed charge, each semester, of $6.00 per semester credit hour for students carrying eight hours or less; for students carrying more than eight hours, $50.00 for the semester.

Laboratory fees range from $2.00 to $8.00 per course per semester.

Baltimore:

School of Medicine: A fixed charge, each semester, of $8.00 per semester credit hour. Laboratory fees range from $10.00 to $20.00 per course.

School of Pharmacy: A fixed charge, each semester, of $6.00 per semester credit hour. This fee is required of all graduate students except

assistants, who will pay only a laboratory fee of $3.00 per semester credit hour.

Summer Sessions, College Park:

Students in the Summer Session pay the regular matriculation and diploma fees. The hour credit fee is as follows:

A full load of six semester hours, $25.00.

A load of less than six semester hours, $6.00 per semester credit hour.

Living Expenses:

Board and lodging are available in many private homes in College Park and vicinity. The cost of board and room ranges from about $35.00 to $45.00 a month, depending on the desires of the individual. A list of accommodations is maintained in the office of Miss Grace Lee, Director of Personnel, College Park.

FELLOWSHIPS AND ASSISTANTSHIPS

Fellowships. A number of fellowships have been established by the University. The stipend for the University fellows is $400 for the academic year and the remission of all graduate fees except the diploma fee. Several industrial fellowships with varying stipends are also available in certain departments.

Application blanks for University fellowships may be obtained from the office of the Graduate School. The application, with the necessary credentials, is sent by the applicant directly to the Dean of the Graduate School.

Fellows are required to render minor services prescribed by their major departments. The usual amount of service required does not exceed twelve clock hours per week. Fellows are permitted to carry a full graduate program, and they may satisfy the residence requirement for higher degrees in the normal time.

The selection of fellows is made by the departments to which the fellowships are assigned, with the approval of the dean or director concerned, but all applications must first be approved by the Dean of the Graduate School. The awards of University fellowships are on a competitive basis.

Graduate Assistantships. A number of teaching and research graduate assistantships are available in several departments. The compensation for these assistantships is $800 a year and the remission of all graduate fees except the diploma fee. Graduate assistants are appointed for one year and are eligible to reappointment. The assistant in this class devotes one-half of his time to instruction or to research in connection with Experiment Station projects, and he is required to spend two years in residence for the Master's degree. If he continues in residence for the Doctor's degree, he is allowed two-thirds residence credit for each academic year at this University. The minimum residence requirement from the Bachelor's degree, therefore, may be satisfied in four academic years and one summer, or three academic years and three summer sessions of eleven or twelve weeks each.

Other Assistants. Assistants not in the regular $800 class are frequently allowed to take graduate courses if they are eligible for admission to the Graduate School. The stipend for these assistants varies with the services rendered, and it may or may not include the remission of graduate fees. The question of fees is decided in each individual case by the dean or director concerned when the stipend is arranged. The amount of graduate work these assistants are permitted to carry is determined by the head of the department, with the approval of the dean or director concerned. The Graduate Council, guided by the recommendation of the student's advisory committee, prescribes the required residence in each individual case at the time the student is admitted to candidacy.

Further information regarding assistantships may be obtained from the department or college concerned.

COMMENCEMENT

Attendance is required at the commencement at which the degree is conferred, unless the candidate is excused by the Dean of the Faculty.

Application for diploma must be filed in the office of the Registrar before March 1 of the year in which the candidate expects to obtain a degree.

Academic costume is required of all candidates at commencement. Candidates who so desire may purchase or rent caps and gowns at the Students' Supply Store. Order must be filed before March 20, but may be cancelled later if the student finds himself unable to complete his work for the degree.

SUMMER SESSION

HAROLD BENJAMIN, *Director*

A Summer Session of six weeks is conducted at College Park. The program serves the needs of the following classes of students: (1) teachers and supervisors of the several classes of school work—elementary, secondary, vocational, and special; (2) regular students who are candidates for degrees; (3) graduate students; (4) special students not candidates for degrees.

Terms of Admission

The admission requirements for those who desire to become candidates for degrees are the same as for any other session of the University. Before registering, a candidate for a degree will be required to consult the Dean of the College or School in which he wishes to secure the degree. Teachers and special students not seeking a degree are admitted to the courses of the summer session for which they are qualified. All such selection of courses must be approved by the Director of the Summer Session.

Credits and Certificates

The semester hour is the unit of credit as in other sessions of the University. In the summer session, a course meeting five times a week for six weeks and requiring the standard amount of outside work has a value of two semester hours.

Courses satisfactorily completed will be credited by the State Department of Education towards satisfying certification requirements of all classes.

Summer Graduate Work

For persons wishing to do graduate work towards an advanced degree in the summer sessions, special arrangements are made supplementing the regular procedure. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements as to admission, credits, scholarship, and examinations as do students enrolled in the other sessions of the University.

For detailed information in regard to the Summer Session, consult the special Summer Session announcement, issued annually in April.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

THOMAS D. FINLEY, *Lieut. Col. Infantry, U. S. Army, Professor*

RESERVE OFFICERS' TRAINING CORPS

The work in this department is based upon the provisions of Army Regulations No. 145-10, War Department.

Authorization

An infantry unit of the Senior Division of the Reserve Officers' Training Corps was established at the University under the provisions of the Act of Congress of June 3, 1916, as amended.

Organization

The unit is organized as a regiment of four battalions of three rifle companies each, and a band. All units are commanded by Advanced Course students, who have been selected for these commands on a basis of merit. The course of instruction is divided into two parts: the Basic Course and the Advanced Course.

Objectives

*Basic Course

The object of this course is to afford to students enjoying the privileges of State and Federal aided education an opportunity to be trained for positions involving leadership, within either the State or the nation. To this end the methods employed are designed to fit men mentally, physically, and morally for pursuits of peace or, if necessity requires, for national defense. A member of the R. O. T. C. is not in the Army of the United States, and membership in the unit carries no legal obligation to serve in the Army, or any of the armed forces.

**Advanced Course

The primary object of the Advanced Course is to provide military instruction and systematic training through the agency of civil educational institutions to selected students, to the end that they may qualify as reserve officers in the military forces of the United States. It is intended to attain this objective in accordance with the terms of the contract during the time the students are pursuing as undergraduates their general or professional studies, thus causing minimum interference with the preparatory requirements of their projected civil careers.

A student prior to enrollment in this course must have satisfactorily completed the basic course and must have indicated in writing his desire to

* Required of qualified students.
**Elective for qualified undergraduates in accordance with the contract.

undertake the course. The applicant further must obtain on this document the recommendation of both the Dean of his College and the Professor of Military Science and Tactics, and submit same to the President of the Institution for approval. No student will be enrolled in the Advanced Course without the approval of the President of the University.

Time Allotted

For first and second years, basic course, three periods a week of not less than one hour each are devoted to this work, of which at least one hour is utilized for theoretical instruction.

For third and fourth years, advanced course, elective, five periods a week of not less than one hour each are devoted to this work, of which at least three periods are utilized for theoretical instruction.

Physical Training

Physical training forms an important part of military instruction, and it is the policy of the Military Department to encourage and support the physical training given by civilian teachers, thus coöperating in an effort to promote a vigorous manhood.

Physical Examination

All members of the Reserve Officers' Training Corps are required to be examined physically at least once after entering the University.

Uniforms*

Members of the Reserve Officers' Training Corps must appear in proper uniform at all military formations and at such other times as the Professor of Military Science and Tactics may designate with the approval of the President of the University.

Uniforms, or commutation in lieu of uniforms, for the Reserve Officers' Training Corps, are furnished by the Government. The uniforms are the regulation uniforms of the United States Army, with certain distinguishing features; or, if commutation of uniforms is furnished, then such uniforms as may be adopted by the University. Such uniforms must be kept in good condition by the students. They remain the property of the Government; and, though intended primarily for use in connection with military instruction, may be worn at other times unless the regulations governing their use are violated. The uniform will not be worn in part nor used while the wearer is engaged in athletic sports other than those required as a part of the course of instruction. A Basic Course uniform which is furnished to a student by the Government will be returned to the Military Department at the end of the year; or before, if a student severs his connection with the

*Each new student entering the R. O. T. C. is required to purchase a pair of shoes approved by the Military Department, at the approximate cost of $3.90. These shoes are on sale at the Armory and will be fitted and paid for at the time uniforms are issued.

Department. In case commutation of uniforms is furnished, the uniform so purchased becomes the property of the student upon completion of two years' work.

Commutation

Students who elect the Advanced Course and who have signed the contract with the Federal Government to continue in the Reserve Officers' Training Corps for the two remaining years of the Course are entitled to a small per diem money allowance, for commutation of subsistence, payable quarterly from and including the date of contract, until they complete the course at the institution.

Summer Camps

An important and excellent feature of the Reserve Officers' Training Corps is the summer camp. In specially selected parts of the country, camps are held for a period not exceeding six weeks for students who are members of the Advanced Course Reserve Officers' Training Corps. These camps are under the close and constant supervision of army officers, and are intended primarily to give a thorough and comprehensive practical course of instruction in the different arms of the service.

Parents may feel assured that their sons are carefully watched and safeguarded. Wholesome surroundings and associates, work and healthy recreation are the keynote to contentment. Social life is not neglected, and the morale branch exercises strict censorship over all social functions.

The attendance at summer camps is compulsory only for students who are taking the advanced course, which, as has been previously stated, is elective.

Students who attend the summer camps are under no expense. The Government furnishes transportation from the institution to the camp and from the camp to the institution, or to the student's home, unless the mileage is greater than that from the camp to the institution. In this case, the amount of mileage from the camp to the institution is allowed the student. Clothing, quarters, and food are furnished. The Advanced Course students, in addition to receiving quarters and food, are paid sixty cents for each day spent in camp. To obtain credit for camp a student must be in attendance at camp at least 85 per cent of the prescribed camp period.

Commissions

(a) Each year, upon completion of the Advanced Course, students qualified for commissions in the Reserve Officers' Corps will be selected by the head of the institution and the professor of Military Science and Tactics.

(b) The number to be selected from each institution and for each arm of the service will be determined by the War Department.

(c) The University of Maryland has received a rating from the War Department of "Generally Excellent" for the past several years. This rating indicates that the work of its R. O. T. C. unit has been recognized by the

Federal Government as being of a superior order. The "Generally Excellent" rating supersedes the former designation of "Distinguished College," which designation has been discontinued by the War Department for institutions such as this University.

Credits

Military instruction at this University is on a par with other university work, and the requirements of this department as to proficiency the same as those of other departments.

Students who have received military training at any educational institution under the direction of an army officer detailed as professor of military science and tactics may receive such credit as the professor of military science and tactics and the President may jointly determine.

PHYSICAL EDUCATION, RECREATION, AND ATHLETICS

The purpose of the program of physical education at the University is broadly conceived as the development of the individual student. To accomplish this purpose, physical examinations and classification tests are given the incoming students to determine the relative physical fitness of each. Upon the basis of the needs disclosed by these tests, and individual preferences, students are assigned to the various activities of the program.

Freshmen and sophomores assigned to physical education take three activity classes each week throughout the year. In the fall, soccer, touch football, and tennis are the chief activities; in the winter, basketball, volley ball, and other team games; and in the spring, track, baseball, and tennis. In addition to these team activities, sophomore students may elect a considerable number of individual sports, such as fencing, boxing, wrestling, horseshoes, ping pong, bag punching, and the like.

An adequate program of intramural sports is conducted, also. Touch football and soccer in the fall, basketball and volleyball in the winter, baseball and track in the spring, are the chief activities in this program. Plaques, medals, and appropriate awards in all tournaments of the program are provided for the winning teams and individual members.

Every afternoon of the school session the facilities of the Physical Education Department are thrown open to all students for free unorganized recreation. Touch football, soccer, basketball, basket shooting, apparatus work, fencing, boxing, wrestling, bag punching, tennis, badminton, and ping pong are the most popular contests engaged in.

The University is particularly fortunate in its possession of excellent facilities for carrying on the activities of the program of physical education. A large modern gymnasium, a new field house, a number of athletic fields, tennis courts, baseball diamonds, running tracks, and the like, constitute the major part of the equipment.

In addition to the activities described above, the University sponsors a full program of intercollegiate athletics for men. Competition is promoted in varsity and freshman football, basketball, baseball, track, boxing, lacrosse, and tennis, which are all major sports of this program. The University is a member of the Southern Conference, the National Collegiate Athletic Association, and other national organizations for the promotion of amateur athletics.

The Department of Physical Education for Women has excellent facilities for conducting a full activities program. Seasonal team sports including hockey, soccer, speedball, basketball, volleyball, softball; individual sports, consisting of tennis, badminton, fencing, golf, archery, deck tennis, table tennis, and the like are offered. Opportunity is given for various types of dancing including, modern, tap, folk, and ballroom. The proximity of the

University to Washington and Baltimore provides excellent opportunity for groups to attend professional concerts in dance, as well as to participate in dance symposia.

The Women's Athletic Association sponsors and conducts intramural tournaments in the seasonal sports, sports days with neighboring colleges, and intercollegiate competition in rifle shooting.

The University also maintains curricula designed to train men and women students to teach physical education and coach in the high schools of the state, and to act as leaders in recreational programs in communities.

For a description of the courses in Physical Education and Recreation, see College of Education, and Section III, Description of Courses.

SCHOOL OF DENTISTRY

J. BEN ROBINSON, *Dean.*

Faculty Council

GEORGE M. ANDERSON, D.D.S., F.A.C.D.
BRICE M. DORSEY, D.D.S.
BURT B. IDE, D.D.S., F.A.C.D.
ROBERT L. MITCHELL, Phar.D., M.D.
ALEXANDER H. PATERSON, D.D.S., F.A.C.D.
J. BEN ROBINSON, D.D.S., F.A.C.D.
LEO A. WALZAK, D.D.S.

HISTORY

The Baltimore College of Dental Surgery occupies an important and interesting place in the history of dentistry. At the end of the regular session, 1939-40, it will have completed its one hundredth year of service to dental education. The Baltimore College of Dental Surgery represents the first effort in history to offer institutional dental education to those anticipating the practice of dentistry.

The first lectures on dentistry in America were delivered by Dr. Horace H. Hayden in the University of Maryland, School of Medicine, between the years 1823-25. These lectures were interrupted in 1825 by internal dissensions in the School of Medicine and were discontinued. It was Dr. Hayden's idea that dental education merited greater attention than had been given it by medicine or could be given it by the preceptorial plan of dental teaching then in vogue. It was also his opinion that dental education should be developed as a special branch of medical teaching. The unfortunate circumstances of internal strife in the Medical School defeated the purpose of Dr. Hayden to engraft dental education upon medical education.

Dr. Horace H. Hayden began the practice of dentistry in Baltimore in 1800. From that time he made a zealous attempt to lay the foundation for a scientific, serviceable dental profession. In 1831 Dr. Chapin A. Harris came to Baltimore to study under Hayden. Dr. Harris was a man of unusual ability and possessed special qualifications to aid in establishing and promoting formal dental education. Since Dr. Hayden's lectures had been interrupted at the University of Maryland and there was an apparent insurmountable difficulty confronting the creation of dental departments in medical schools, an independent college was decided upon. A charter was applied for and granted by the Maryland Legislature February 1, 1840.

The first Faculty meeting was held February 3, 1840, at which time Horace H. Hayden was elected President and Chapin A. Harris, Dean. The introductory lecture was delivered by Dr. Harris on November 3, 1840, to the five students matriculating in the first class. Thus was created as the foundation of the present dental profession the Baltimore College of Dental Surgery, the first and oldest dental school in the world.

Hayden and Harris, the admitted founders of the dental profession, contributed, in addition to the factor of dental education, other opportunities for professional growth and development. In 1839 the American Journal of Dental Science was founded, with Chapin A. Harris as its editor. Dr. Harris continued fully responsible for dentistry's initial venture into periodic dental literature to the time of his death. The files of the old American Journal of Dental Science testify to the fine contributions made by Dr. Harris. In 1840 the American Society of Dental Surgeons was founded, with Dr. Horace H. Hayden as its President and Dr. Chapin A. Harris as its Corresponding Secretary. This was the beginning of dental organization in America, and was the forerunner of the American Dental Association, which now numbers approximately forty-five thousand in its present membership. The foregoing suggests the unusual influence Baltimore dentists and the Baltimore College of Dental Surgery have exercised on professional ideals and politics.

In 1873, the Maryland Dental College, an offspring of the Baltimore College of Dental Surgery, was organized. It continued instruction until 1879, at which time it was consolidated with the Baltimore College of Dental Surgery. A department of dentistry was organized at the University of Maryland in the year 1882, graduating a class each year from 1883 to 1923. This school was chartered as a corporation and continued as a privately owned and directed institution until 1920, when it became a State institution. The Dental Department of the Baltimore Medical College was established in 1895, continuing until 1913, when it merged with the Dental Department of the University of Maryland.

The final combining of the dental educational interests of Baltimore was effected June 15, 1923, by the amalgamation of the student bodies of the Baltimore College of Dental Surgery and the University of Maryland, School of Dentistry; the Baltimore College of Dental Surgery becoming a distinct department of the University under State supervision and control. Thus we find in the Baltimore College of Dental Surgery, Dental School, University of Maryland, a merging of the various efforts at dental education in Maryland. From these component elements have radiated developments of the art and science of dentistry until the strength of its alumni is second to none, either in number or degree of service to the profession.

The University of Maryland Medical School was organized December 28, 1807, as the College of Medicine of Maryland. On December 28, 1812, the University of Maryland charter was issued to the College of Medicine of Maryland. There were at that period but four other medical schools in America—the University of Pennsylvania, founded in 1765; the College of

Physicians and Surgeons of New York, in 1767; Harvard University, in 1782; and Dartmouth College, in 1797.

It is of interest to note that the University of Maryland as it now exists is the youngest State University in America, but that its various schools rank among the oldest in existence. The School of Medicine at its beginning was the fifth oldest existent medical school in America; the Law School was organized in 1823; the Dental School, 1840, is the oldest dental school in the world; the Pharmacy School was founded in 1841; the College of Agriculture, 1856, is the second oldest land grant college in America. While the present form of the University of Maryland is young, its substance and character date back to the earliest period in education in the various professions.

BUILDING

The School of Dentistry is located at the northwest corner of Lombard and Greene Streets, adjoining the University Hospital. The building occupied by the Dental School provides approximately fifty thousand square feet of floor space, is fireproof, splendidly lighted and ventilated, and is ideally arranged for efficient use. It contains a sufficient number of large lecture rooms, classrooms, a library and reading room, science laboratories, technic laboratories, clinic rooms, and locker rooms. It is funished with new equipment throughout and provides every accommodation necessary for satisfactory instruction under comfortable arrangements and pleasant surroundings.

Special attention has been given to the facilities in clinic instruction. The large clinic wing contains 145 operating spaces; each space contains a chair, operating table and unit equipped with an electric engine, compressed air, gas, running water, etc. Clinic instruction is segregated, and the following departments have been arranged for effective teaching: Operative, Prosthetic (including Crown and Bridge and Ceramics), Anesthesia and Surgery, Orthodontia, Diagnosis, Pathology, Pedodontia, Radiodontia, and Photography. All technic laboratories are equipped with every modern facility to promote efficiency in instruction.

LIBRARY

The Dental School is fortunate in having one of the best equipped and organized dental libraries among the dental schools of the country. It is located in the main building and consists of a stack room, collateral offices and a reading room that will accommodate ninety-six students. It contains over eight thousand bound volumes of dental textbooks and files of dental magazines, numerous pamphlets, reprints, etc.; while over 140 current dental magazines reach its reading tables. The two full-time librarians promote the growth of the Library and serve the student body in its use of library material. The Library is financed by direct appropriations from the State, by the income from an endowment established by the Maryland State Dental Association and by the proceeds of the sale of books to

students. One of the most important factors of the dental student's education is to teach him the value and the use of dental literature in his formal education and in promoting his usefulness and value to the profession during practice. The Baltimore College of Dental Surgery is ideally equipped to take care of this phase of dental study.

COURSE OF INSTRUCTION

The Baltimore College of Dental Surgery, Dental School, University of Maryland, offers a four-year course in dentistry devoted to instruction in the medical sciences, the dental sciences, and clinical practice. Instruction consists of didactic lectures, laboratory instruction, demonstrations, conferences, and quizzes. Topics are assigned for collateral reading to train the student in the value and use of dental literature.

REQUIREMENTS FOR ADMISSION TO THE SCHOOL OF DENTISTRY

(a) Applicants for admission must present evidence of having successfully completed two years of work in an accredited college of arts and sciences based upon the completion of a four-year high-school course. No applicant will be considered who has not completed all requirements for advancement to the junior year in the arts and sciences college from which he applies. His scholastic attainments shall be of such quality as to ensure a high quality of achievement in the dental course.

(b) The minimum as a basis for admission is two years' credit toward a baccalaureate degree in an accredited college of arts and sciences. The following minimum quantitative requirements are prescribed:

Biology	6 semester hours
Inorganic Chemistry	8 semester hours
Organic Chemistry	4 semester hours
Physics	6 semester hours
English	6 semester hours
Electives	30 semester hours

Deviation from these minimum requirements is allowed in all of the required subjects except chemistry, and is dependent upon the length of college training and the level of achievement attained by the student in his college work.

Semester Hours	*Deviation*
60 semester hours	none
90 semester hours	6 hours
Bachelor of Science or Bachelor of Arts Degree	9 hours
Master of Science or Doctor of Philosophy Degree	12 hours

(c) Applicants who have been dropped for poor scholarship, or who have failed at other institutions or other colleges of the University of Maryland last attended, will not be considered for admission.

REQUIREMENTS FOR MATRICULATION AND ENROLLMENT

In the selection of students to begin the study of dentistry the School considers particularly a candidate's proved ability in secondary education and his successful completion of prescribed courses in predental collegiate training. The requirements for admission and the academic regulations of the College of Arts and Sciences, University of Maryland, are strictly adhered to by the School of Dentistry.

A student is not regarded as having matriculated in the School of Dentistry until such time as he shall have paid the matriculation fee of $10.00, and is not enrolled until he shall have paid a deposit of $50.00 to insure registration in the class.

APPLICATION PROCEDURE

Application blanks may be obtained from the office of the Dean. Each applicant should fill in this blank completely and mail it, together with the application fee and photographs, to the Director of Admissions, University of Maryland, Baltimore. The notes on the reverse side of the blank should be observed carefully.

A certificate of entrance will be issued to each qualified applicant, which will permit him to matriculate and to register in the class to which he has applied.

REQUIREMENTS FOR ADMISSION TO THE PREDENTAL CURRICULUM

The secondary school requirements observed by the College of Arts and Sciences, University of Maryland, are strictly adhered to—graduation from an accredited secondary school which requires for graduation in a four-year course not less than 15 units.* The equivalent in entrance examinations may be offered by nongraduates of a secondary school.

Required: English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total 7 units.

Elective: Agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group.

*Required seven (7), and elective eight (8) units for entrance. Total fifteen (15) units.

Predental Curriculum

	Semesters I	Semesters II
Freshman Year		
Survey and Composition (Eng. 1y)	3	3
Elements of College Mathematics (Math 8f, 10s)	3	3
Inorganic Chemistry (Chem. 1y)	4	4
Reading and Speaking (Speech 1y)	1	1
Fundamentals of Zoology (Zool. 3y)	4	4
Technical Drawing (Dr. 1y)	1	1
	16	16
Sophomore Year		
Organic Chemistry (Chem. 2y)	2	2
Organic Chemistry Laboratory (Chem. 3y)	2	2
General Physics (Phys. 1y)	4	4
French (French 1y or French 3y) or German (German 1y or German 3y)	3	3
English Survey (Eng. 2y)	2	2
Principles of Sociology (Soc. 1f)	3	—
Principles of Economics (Econ. 57s)	—	3
	16	16

The equivalent of the above curriculum is offered in the Baltimore branch of the University.

Fees for the Predental Course

Application fee (paid at time of filing application for admission)	$2.00
Matriculation fee (paid at the time of enrollment)	10.00
*Tuition for the session, resident student	220.00
*Tuition for the session, non-resident student	270.00
Laboratory fee (each session)	50.00
Locker fee (each session)	3.00
Laboratory breakage deposit (each session)	5.00
Penalty for late registration	5.00
Examination taken out of class and re-examinations	5.00

Student Activity Fee—Special

For the purpose of administering and disciplining various student activities the student body has voted a fee of $10.00 to be paid at the opening of the school year to the treasurer of the Student Activity Committee.

Academic Regulations

The academic regulations of the College of Arts and Sciences are applied in the predental curriculum.

*Definition of resident status of student given on page 212.

A student must attain marks higher than F in fifty per cent of the semester hours for which he is registered, or he is automatically dropped from the curriculum.

No student will be certified for admission to the School of Dentistry until he shall have completed the predental curriculum with a minimum average mark of C—2.0 (A, 4; B, 3; C, 2; D, 1.).

DENTAL CURRICULUM

The curriculum is described in full in the bulletin of the School of Dentistry.

Admission with Advanced Standing

(a) The School of Dentistry will not accept toward advanced standing credits earned in dental schools not members of the American Association of Dental Schools.

(b) Graduates in medicine or students in medicine who have completed two or more years in a medical school, acceptable to standards in the School of Medicine, University of Maryland, may be given advanced standing to the Sophomore year *provided* the applicant shall *complete* under competent regular instruction the courses in dental technology regularly scheduled in the first year.

(c) Applicant for transfer must (1) meet fully the requirements for admission to the first year of the dental course; (2) be eligible for promotion to the next higher class in the school from which he seeks to transfer; (3) show an average grade of five per cent above the passing mark in the school where transfer credits were earned; (4) show evidence of scholastic attainments, character and personality; (5) present letter of honorable dismissal and recommendation from the dean of the school from which he transfers.

(d) No transfer application will be considered after August 15. All applicants for transfer must present themselves in person for an interview before qualifying certificate can be issued.

Attendance Requirements

In order to receive credit for a full session, each student must have entered and be in attendance on the day the regular session opens, at which time lectures to all classes begin, and remain until the close of the session, the dates for which are announced in the calendar of the annual catalogue.

Regular attendance is demanded. Students with less than eighty-five per cent attendance in any course will be denied the privilege of final examination in any and all such courses. In certain unavoidable circumstances of absence the Dean may honor excuses, but students with less than eighty-five per cent attendance will not be promoted to the next succeeding class.

Promotion

1. Students who shall have passed satisfactorily all subjects in the year in which they are enrolled and who shall have achieved an average of

five per cent above the passing mark shall be promoted to the next succeeding year.

2. Students who are deficient in courses amounting to not more than 20% of the scheduled hours of their course will be permitted to proceed with their class with the understanding that such deficiency shall be removed before the beginning of the next regular school year. Students with conditions will not be admitted to Senior standing.

3. A grade of 75 per cent is passing. A grade between 60 per cent and passing is a condition. A grade below 60 per cent is a failure. A condition may be removed by a re-examination. In such effort, failure to make a passing mark is recorded as a failure in the course. A failure can be removed only by repeating the course.

Equipment

A complete list of necessary instruments and materials for technic and clinic courses and textbooks for lecture courses will be announced for the various classes. Each student will be required to provide himself with whatever is necessary to meet the needs of his course and present same to an assigned instructor for inspection. No student who does not meet this requirement will be permitted to go on with his class.

Deportment

The profession of dentistry demands, and the School of Dentistry requires, of its students, evidence of their good moral character. The conduct of the student in relation to his work and fellow students will indicate his fitness to be taken into the confidence of the community as a professional man. Integrity, sobriety, temperate habits, truthfulness, respect for authority and associates, and honesty in the transaction of business affairs as a student will be considered as evidence of good moral character necessary to the granting of a degree.

Requirements for Graduation

The degree of Doctor of Dental Surgery is conferred upon a candidate who has met the following conditions:

1. A candidate must furnish documentary evidence that he has attained the age of 21 years.

2. A candidate for graduation shall have attended the full four-year course of study of the dental curriculum, the last year of which shall have been spent in this institution.

3. He will be required to show a general average of at least 80 per cent during the full course of study.

4. He shall have satisfied all technic and clinic requirements of the various departments.

5. He shall have paid all indebtedness to the college prior to the beginning of final examinations, and must have adjusted his financial obligations in the community satisfactorily to those to whom he may be indebted.

Fees for the Dental Course

Application fee (paid at time of filing formal application for admission)	$ 2.00
Matriculation fee (paid at time of enrollment)	10.00
*Tuition for the session, resident student	275.00
*Tuition for the session, nonresident student	375.00
Dissecting fee (first semester, Freshman year)	15.00
Laboratory fee (each session)	20.00
Locker fee—Freshman and Sophomore years (first semester)	3.00
Locker fee—Junior and Senior years (first semester)	5.00
Laboratory breakage deposit—Freshman and Sophomore years (first semester)	5.00
Graduation fee (paid with second semester fees of Senior year)	15.00
Penalty fee for late registration	5.00
Examinations taken out of class and re-examinations	5.00
One certified transcript of record will be issued free of charge. Each additional copy will be issued only upon payment of	1.00

Student Activity Fee—Special

For the purpose of administering and disciplining various student activities the student body has voted a fee of $10.00 to be paid at the opening of the school year to the treasurer of the Student Activity Committee.

Refunds—According to the policy of the University no fees will be returned. In case the student discontinues his course, any fees paid will be credited to a subsequent course, but are not transferable.

Registration

The registration of a student in any school or college of the University shall be regarded as a registration in the University of Maryland, but when such student transfers to a professional school of the University or from one professional school to another, he must pay the usual matriculation fee required by each professional school.

A student who neglects or fails to register prior to or within the day or days specified for his school, will be called upon to pay a fine of $5.00. The last day of registration with fine added to regular fees is Saturday at noon of the week in which instruction begins, following the specified registration period. (This rule may be waived only on the written recommendation of the Dean.)

Each student is required to fill in a registration card for the office of the Registrar, and pay to the Comptroller one-half of the tuition fee in addition to all other fees noted as payable first semester before being admitted to class work at the opening of the session. The remainder of tuition and second semester fees must be in the hands of the Comptroller on the registration day for the second semester.

The above requirements will be rigidly enforced.

*Definition of resident status of student given on page 212.

Definition of Resident Status of Student

Students who are minors are considered to be resident students if, at the time of their registration their parents* have been residents of this State for at least one year.

Adult students are considered to be resident students if, at the time of their registration, they have been residents of this state for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this state by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

Summer Courses

Aside from and independent of the regular session, special courses are offered during the summer recess. The course in clinical instruction is conducted from June 1 to August 1 and from September 1 to 16 inclusive. The course is open only to students registered in the school. It offers opportunities to students carrying conditions in the clinic from the preceding session as well as those who desire to gain more extended practice during their training period. The clinics are under the direction of capable demonstrators, full credit being given for all work done.

The Gorgas Odontological Society

The Gorgas Odontological Society was organized in 1916 as an honorary student dental society with scholarship as a basis for admission. The society is named after Dr. Ferdinand J. S. Gorgas, a pioneer in dental education, a teacher of many years experience, and during his life a great contributor to dental literature. It was with the idea of perpetuating his name that the society adopted it.

Students become eligible for membership at the beginning of their junior year if, during their preceding years of the dental course, they have attained a general average of 85 per cent or more in all of their studies. Meetings are held once each month, and are addressed by prominent dental and medical men, an effort being made to obtain speakers not connected with the University. The members have an opportunity, even while students, to hear men associated with other educational institutions.

Omicron Kappa Upsilon

Phi Chapter of Omicron Kappa Upsilon honorary dental fraternity was chartered at the Baltimore College of Dental Surgery, Dental School, University of Maryland, during the session of 1928-1929. Membership in the fraternity is awarded to a number not exceeding twelve per cent of the graduating class. This honor is conferred upon students who through their professional course of study creditably fulfill all obligations as students, and whose conduct, earnestness, evidence of good character, and high scholarship recommend them to election.

*The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of or stand *in loco parentis* to such minor students.

Scholarship Loans

A number of scholarship loans from various organizations and educational foundations are available to students in the School of Dentistry. These loans are offered on the basis of excellence in scholastic attainment and the need on the part of students for assistance in completing their course in dentistry. It has been the policy of the Faculty to recommend only students in the last two years for such privileges.

The Henry Strong Educational Foundation—From this fund, established under the will of General Henry Strong, of Chicago, an annual allotment is made to the Baltimore College of Dental Surgery, Dental School, University of Maryland, for scholarship loans available for the use of young men and women students under the age of twenty-five. Recommendations for the privileges of these loans are limited to students in the junior and senior years. Only students who through stress of circumstances require financial aid and who have demonstrated excellence in educational progress are considered in making nominations to the secretary of this fund.

The Edward S. Gaylord Educational Endowment Fund—Under a provision of the will of the late Dr. Edward S. Gaylord, of New Haven, Conn., an amount approximating $16,000 was left to the Baltimore College of Dental Surgery, Dental School, University of Maryland, the proceeds of which are to be devoted to aiding worthy young men in securing dental education.

ALUMNI ASSOCIATION

The first annual meeting of the Society of the Alumni of the Baltimore College of Dental Surgery was held in Baltimore, March 1, 1849. This organization has continued in existence to the present, its name having been changed to The National Alumni Association of the Baltimore College of Dental Surgery, Dental School, University of Maryland.

THE SCHOOL OF LAW

ROGER HOWELL, *Dean*

THE FACULTY COUNCIL

RANDOLPH BARTON, JR., ESQ., A.B., LL.B.
HON. W. CALVIN CHESNUT, A.B., LL.B.
EDWIN T. DICKERSON, ESQ., A.M., LL.B.
HON. HENRY D. HARLAN, A.M., LL.B., LL.D.
CHARLES MCHENRY HOWARD, ESQ., A.B., LL.B.
ROGER HOWELL, ESQ., A.B., Ph.D., LL.B.
G. KENNETH REIBLICH, A.B., Ph.D., J.D., LL.M.
EDWIN G. W. RUGE, ESQ., A.B., LL.B.
G. RIDGELY SAPPINGTON, ESQ., LL.B.
HON. MORRIS A. SOPER, A.B., LL.B.
JOHN S. STRAHORN, JR., A.B., LL.B., S.J.D., J.S.D.

While the first faculty of law of the University of Maryland was chosen in 1813, and published in 1817 "A Course of Legal Study Addressed to Students and the Profession Generally," which the North American Review pronounced to be "by far the most perfect system for the study of law which has ever been offered to the public," and which recommended a course of study so comprehensive as to require for its completion six or seven years, no regular school of instruction in law was opened until 1823. The institution thus established was suspended in 1836 for lack of proper pecuniary support. In 1869 the School of Law was reorganized, and in 1870 regular instruction therein was again begun. From time to time the course has been made more comprehensive, and the staff of instructors increased in number. Its graduates now number more than three thousand, and included among them are a large proportion of the leaders of the Bench and Bar of the State and many who have attained prominence in the profession elsewhere.

The Law School has been recognized by the Council of the Section of Legal Education of the American Bar Association as meeting the standards of the American Bar Association, and has been placed upon its approved list.

The Law School is a member of the Association of American Law Schools, an association composed of the leading law schools in the United States, member schools being required to maintain certain high standards relating to entrance requirements, faculty, library, and curriculum.

The Law School is also registered as an approved school on the New York Regents' list.

The Law School Building, erected in 1931, is located at Redwood and Greene Streets in Baltimore. In addition to classrooms and offices for

the Law faculty, it contains a large auditorium, practice-court room, students' lounge and locker rooms, and the law library, the latter containing a collection of carefully selected text-books, English and American reports, leading legal periodicals, digests, and standard encyclopedias. No fee is charged for the use of the library, which is open from 9.00 A. M. to 10.30 P. M., except on Saturday, when it closes at 5.00 P. M.

Course of Instruction

The School of Law is divided into two divisions, the Day School and the Evening School. The same curriculum is offered in each school, and the standards of work and graduation requirements are the same.

The Day School course covers a period of three years of thirty-two weeks each, exclusive of holidays. The class sessions are held during the day, chiefly in the morning hours. The Practice Court sessions are held on Monday evenings from 8.00 to 10.00 P. M.

The Evening School course covers a period of four years of thirty-six weeks each, exclusive of holidays. The class sessions are held on Monday, Wednesday, and Friday evenings of each week from 6.30 to 9.30 P. M. This plan leaves the alternate evenings for study and preparation by the student.

The course of instruction in the School of Law is designed thoroughly to equip the student for the practice of his profession when he attains the Bar. Instruction is offered in the various branches of the common law, of equity, of the statute law of Maryland, and of the public law of the United States. The course of study embraces both the theory and practice of the law, and aims to give the student a broad view of the origin, development, and function of law, together with a thorough practical knowledge of its principles and their application. Analytical study is made of the principles of substantive and procedural law, and a carefully directed practice court enables the student to get an intimate working knowledge of procedure.

Special attention is given to the statutes in force in Maryland, and to any peculiarities of the law in that State, where there are such. All of the subjects upon which the applicant for the Bar in Maryland is examined are included in the curriculum. But the curriculum includes all of the more important branches of public and private law, and is well designed to prepare the student for admission to the Bar of other States.

Requirements for Admission

The requirements for admission are those of the Association of American Law Schools. Applicants for admission as candidates for a degree are required to produce evidence of the completion of at least two years of college work; that is, the completion of at least one-half the work acceptable for a Bachelor's degree granted on the basis of a four-year period of study by the University of Maryland or other principal college or university in this State.

To meet this requirement, a candidate for admission must present at least sixty semester hours (or their equivalent) of college work taken in an institution approved by standard regional accrediting agencies and exclusive of

credit earned in non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music, or other courses without intellectual content of substantial value. Such pre-legal work must have been done in residence, no credit being allowed for work done in correspondence or extension courses, and must have been passed with a scholastic average at least equal to the average required for graduation in the institution attended.

In compliance with the rules of the Association of American Law Schools, a limited number of special students, not exceeding 10 per cent of the average number of students admitted as beginning regular law students during the two preceding years, applying for admission with less than the academic credit required of candidates for the law degree, may be admitted as candidates for the certificate of the school, but not for the degree, where, in the opinion of the Faculty Council, special circumstances, such as the maturity and apparent ability of the student, seem to justify a deviation from the rule requiring at least two years of college work. Such applicants must be at least twenty-three years of age and specially equipped by training and experience for the study of law.

Combined Program of Study Leading to the Degrees of Bachelor of Arts and Bachelor of Laws

The University offers a combined program in arts and law leading to the degrees of Bachelor of Arts and Bachelor of Laws.

Students pursuing this combined program in college and pre-legal subjects will spend the first three years in the College of Arts and Sciences at College Park. The fourth year they will register in the School of Law, and upon the successful completion of the work of the first year in the Day School, or the equivalent work in the Evening School, the degree of Bachelor of Arts will be awarded. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the Registrar, University of Maryland, College Park, Md., or by reference to page 126.

Combined Program of Study Leading to the Degrees of Bachelor of Science and Bachelor of Laws

The University also offers a combined program in commerce and law leading to the degrees of Bachelor of Science and Bachelor of Laws.

Students pursuing this combined program will spend the first three years in the College of Commerce at College Park. In the fourth year they will register in the School of Law, and upon the successful completion of the work of the first year in the Day School, or the equivalent thereof in the Evening School, will be awarded the degree of Bachelor of Science. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the Registrar, University of Maryland, College Park, Md., or by reference to page 142.

Advanced Standing

Students complying with the requirements for admission to the school who have, in addition, successfully pursued the study of law elsewhere in a law school which is either a member of the Association of American Law Schools or approved by the American Bar Association, may, in the discretion of the Faculty Council, upon presentation of a certificate from such law school showing an honorable dismissal therefrom, and the successful completion of equivalent courses therein, covering at least as many hours as are required for such subjects in this school, receive credit for such courses and be admitted to advanced standing. No credit will be given for study pursued in a law office, and no degree will be conferred until after one year of residence and study at this school.

Fees and Expenses

The charges for instruction are as follows:

Registration fee to accompany application	$ 2.00
Matriculation fee, payable on first registration	10.00
Diploma fee, payable upon graduation	15.00

Tuition fee, per annum:

Day School	$200.00
Evening School	150.00

An additional tuition fee of $50.00 per annum must be paid by students who are non-residents of the State of Maryland.

The tuition fee is payable in two equal instalments, one-half at the time of registration for the first semester, and one-half at the time of registration for the second semester.

Further information and a special catalogue of the School of Law may be had upon application to the School of Law, University of Maryland, Redwood and Greene Streets, Baltimore, Md.

THE UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
AND
COLLEGE OF PHYSICIANS AND SURGEONS

H. BOYD WYLIE, *Acting Dean.*

MEDICAL COUNCIL

ARTHUR M. SHIPLEY, M.D., Sc.D.
HUGH R. SPENCER, M.D.
H. BOYD WYLIE, M.D.
CARL L. DAVIS, M.D.
MAURICE C. PINCOFFS, B.S., M.D.
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EDUARD UHLENHUTH, Ph.D.
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JOHN C. KRANTZ, JR., Ph.D.
WALTER D. WISE, M.D.
J. MASON HUNDLEY, JR., M.A., M.D.
WILLIAM R. AMBERSON, Ph.D.
LOUIS H. DOUGLASS, M.D.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. In the school building at Lombard and Greene Streets in Baltimore was founded one of the first medical libraries and the first medical college library in the United States.

At this Medical School for the first time in America, dissection was made a compulsory part of the curriculum, and independent chairs for the teaching of gynecology and pediatrics (1867), and of ophthalmology and otology (1873), were installed.

This School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for senior students first was established.

Clinical Facilities

The University Hospital, property of the University, is the oldest institution for the care of the sick in Maryland. It was opened in September,

1823, and at that time consisted of four wards, one of which was reserved for eye cases.

Besides its own hospital, the School of Medicine has control of the clinical facilities of the Mercy Hospital, in which were treated last year 6,682 persons.

In connection with the University Hospital, an outdoor obstetrical clinic is conducted. During the past year 2,108 cases were delivered in the University Hospital and under supervision in this Outdoor Clinic.

The hospital now has 435 beds and 50 bassinets—for medical, surgical, obstetrical, and special cases; and furnishes an excellent supply of clinical material for third-year and fourth-year students.

Dispensaries and Laboratories

The dispensries associated with the University Hospital and Mercy Hospital are organized on a uniform plan in order that teaching may be the same in each. Each dispensary has departments of Medicine, Surgery, Oncology, Ophthalmology and Otology, Genito-Urinary, Gynecology, Gastro-Enterology, Oral Surgery, Cardiology, Pediatrics, Neurology, Orthopedics, Proctology, Psychiatry, Dermatology, Laryngology and Rhinology, and Tuberculosis. All students in their junior year work each day during one-third of the year in the Departments of Medicine and Surgery of the dispensaries. In their senior year, all students work one hour each day in the special departments, where 126,663 cases were treated last year. This gives an idea of the value of these dispensaries for clinical teaching.

Student laboratories conducted by the School of Medicine purely for medical instruction are as follows: Gross Anatomy, Histology and Embryology, Physiology, Bacteriology and Immunology, Biological Chemistry, Pharmacology, Pathology, Clinical Pathology, Operative Surgery and Surgical Anatomy.

Prizes and Scholarships

The following prizes and scholarships are offered in the School of Medicine. (For details see School of Medicine Bulletin.)

Faculty Medal; Dr. A. Bradley Gaither Prize; Samuel M. Shoemaker Prize; Dr. Samuel Leon Frank Scholarship; Hitchcock Scholarships; Randolph Winslow Scholarship; University Scholarship; Frederica Gehrmann Scholarship; Dr. Leo Karlinsky Memorial Scholarship; Clarence and Genevra Warfield Scholarships; Israel and Cecelia A. Cohen Scholarship, and Dr. Horace Bruce Hetrick Scholarship. The Medical Alumni Association Scholarship is assigned for four years. This scholarship is now occupied and will not be assigned again until September, 1944.

Requirements for Admission

The minimum requirements for admission to the School of Medicine are as follows:

(a) Graduation from an approved secondary school, or the equivalent in entrance examinations, and

*(b) Three calendar years of acceptable premedical credit earned in an approved college of arts and sciences. The quantity and quality of this pre-professional course of study shall be not less than that required for recommendation by the institution in which the premedical courses are being, or have been, studied.

The premedical curriculum shall include basic courses in

English
Biology
Inorganic Chemistry
Organic Chemistry
Physics
French or German

and such elective courses as will complete a balanced three-year or four-year schedule of study.

The elective courses should be taken from the following three groups:

Humanities	*Natural Sciences*	*Social Sciences*
English	Comparative Vertebrate Anatomy	Economics
Scientific German, or French (A reading knowledge of either language is desirable, although German is preferred)	Embryology	History
	Physical Chemistry or Quantitative Analysis (Physical Chemistry preferred)	Political Science
		Psychology (Basic course should be taken)
Philosophy	Mathematics	Sociology, etc.

Not less than 36 semester hours (or the equivalent in quarter or session hours, or courses) should be taken in the humanities and social sciences.

Wherever possible, a premedical student should complete a four-year curriculum and earn the baccalaureate degree.

In accepting candidates for admission, preference will be given to those applicants who have high scholastic records in secondary school and college; satisfactory scores in the Medical Aptitude Test (which is given each year by the Association of American Medical Colleges in the institutions that are preparing students for medicine); the most favorable letters of recommendation from their respective premedical committees, or from one instructor in each of the departments of biology, chemistry, and physics; and who in all other respects give every promise of becoming successful students and physicians of high standing.

Application blanks may be secured by addressing the Committee on Admissions, School of Medicine, University of Maryland, Baltimore. Applications for admission will be received beginning October 1 for the ensuing September classes.

Candidates for admission who are accepted will receive certificates of entrance from the Director of Admissions of the University.

*For admission to the Premedical Curriculum the requirements are the same as for the freshman class in the College of Arts and Sciences of the University with the prescribed addition of two years of one foreign language. (See Section I, Entrance.)

Expenses

*The following are the fees for students in the School of Medicine:

	Tuition			
Matriculation	*Resident*	*Non-Resident*	*Laboratory*	*Graduation*
$10.00 (only once)	$450.00	$600.00	$25.00 (yearly)	$15.00

Estimated living expenses for students in Baltimore:

Items	*Low*	*Average*	*Liberal*
Books	$50	$75	$100
College Incidentals	20	20	20
Board, eight months	200	250	275
Room rent	64	80	100
Clothing and Laundry	50	80	150
All other expenses	25	50	75
Total	$409	$556	$720

Advice to Premedical Students

It is suggested that students registered in the Premedical Curriculum secure a copy of the latest bulletin of the school of medicine in which they are interested, early in their freshman year in college, in order to acquaint themselves with the latest requirements for admission.

Copies of the Bulletin of our School of Medicine may be secured by writing to the Committee on Admissions, School of Medicine, University of Maryland, Baltimore.

*The above tuition fees applicable until the end of the session 1939-1940 only. The right is reserved to make changes in these fees whenever the authorities deem it expedient.

SCHOOL OF NURSING

ANNIE CRIGHTON, R.N., *Director and Superintendent of Nurses*

The University of Maryland School for Nurses was established in the year 1889. Since that time it has been an integral part of the University of Maryland, coming under the same government. The school is non-sectarian, the only religious services being morning prayers.

The new University of Maryland Hospital is a general hospital, containing 435 beds and 50 bassinets. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing.

Programs Offered

The program of study of the school is planned for two groups of students: (a) the three-year group and (b) the five-year group.

Requirements for Admission

A candidate for admission must be a graduate of an accredited high school or other recognized preparatory school, and must present record showing that she has completed satisfactorily the required amount of preparatory study. Preference will be given to students who rank in the upper third of the graduating classes in their preparatory schools.

Candidates are required to present 15 units for entrance: required (7), and elective (8) units.

Required: English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective: Astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high school or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group, of which not more than four units can pertain to vocational subjects.

In addition to the above requirements, students must meet certain other definite requirements in regard to health, age, and personal fitness for nursing work.

The preferable age for students registering for the three-year course is 20 to 35 years, although students may be accepted at the age of 18. Women of superior education and culture are given preference, provided they meet the requirements in other particulars. If possible a personal interview with the Director of the School should be arranged on Tuesday or Friday from 11:00 A. M. to 12:00 M.

Blank certificates will be furnished upon application to the Director of the School of Nursing, University of Maryland Hospital, Baltimore, Maryland.

Registration With Maryland State Board of Examiners of Nurses

By regulation of the Maryland State Board of Examiners of Nurses, all students entering schools of nursing in Maryland must, at the beginning of their course, register with the Board in order to be eligible for examination and license on completion of this course.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation are left to the decision of the Director of the School. Misconduct, disobedience, insubordination, inefficiency, neglect, and failure to develop those qualities considered essential in a nurse, are causes for dismissal at any time by the President of the University.

The requirements for admission to the five-year combined program of the School of Nursing are the same as for the other schools and colleges. (Special catalogue will be sent upon request.) The three-year program is designed to meet the requirements for the diploma in Nursing, and comprises the work of the first, second, and third hospital years.

Admission to the School

Students for the spring term are admitted in February, for the fall term in September or October, and for the five year course in September.

Hours of Duty

During the preparatory period the students are engaged in class work for the first four months with no general duty in the hospital, and for the remainder of this period they are sent to the wards on eight-hour duty. During the first, second, and third years the students are on eight-hour day duty and nine-hour night duty, with six hours on holidays and Sundays. The night-duty periods are approximately two months each, with one day at the termination of each term for rest and recreation. The period of night duty is approximately five to six months during the three years.

The first four months of the preparatory period are devoted to theoretical instruction given entirely in the lecture and demonstration rooms of the training school, hospital, and medical school laboratories. The average number of hours per week in formal instruction, divided into lecture and laboratory periods, is 30 hours. This instruction includes courses in anatomy, physiology, cookery and nutrition, dosage and solution, hygiene, bacteriology, chemistry, materia medica, practical nursing, bandaging, ethics, and history of nursing. During the last two months of the probation period the students are placed on duty in the hospital wards for instruction in bedside nursing, and are expected to perform the duties assigned to them by the Director of the School. At the close of the first semester the

students are required to pass satisfactorily both the written and the practical tests; failure to do so will be sufficient reason for terminating the course at this point.

Sickness

A physician is in attendance each day, and all students, when ill, are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years, must be made up. Should the authorities of the school decide that, because of time lost, the theoretical work has not been sufficiently covered to permit the student to continue in the current year, it will be necessary for her to continue her work with the next class.

Vacations

Vacations are given between June and September. A period of four weeks is allowed the student at the completion of the first year, and of the second year.

Expenses

A fee of $50.00, payable on entrance, is required from each student. A student activity fee of $5.00 is to be paid each year at the beginning of the first semester by each student. These will not be returned. A student receives her board, lodging, and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms, obtained through the hospital at a nominal cost. After being accepted as a student nurse, she wears the uniform supplied by the hospital. The student is also provided with text-books and shoes. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

GENERAL PLAN OF INSTRUCTION

The course of instruction covers a period of three years, including the preliminary term of six months. The course of instruction is, in general, as follows:

First Year

First Semester

The first semester, or preliminary term, is devoted to theoretical instruction given in the class rooms of the Nursing School and in lecture rooms and laboratories of the Medical School, and to supervised practice in the wards of the hospital. The courses offered are anatomy, physiology, cookery and nutrition, dosage and solutions, chemistry, bacteriology, hygiene, history of nursing, ethics, psychology, principles and practice of nursing, bandaging and surgical supplies.

Excursions are made to the filtration plant, hygienic dairies, markets, and other places of interest.

At the close of the first semester the students are required to pass satisfactorily both written and practical tests. Failure to do this will be sufficient reason to terminate the course at this period.

Second Semester

During this term the students receive theoretical instruction in general surgery, surgical technic, massage, diet therapy, materia medica, advanced nursing procedures and charting, and the case study method. Ward assignments and instruction provide experience in medical, surgical, gynecological and urological nursing, also in the diet school and outpatients department. This experience is under the direction and supervision of the supervisors of the departments.

Second Year

During this period the theoretical instruction includes general medicine, clinical pathology, venereal and skin diseases, x-ray, radium, communicable diseases, pediatrics, obstetrics, gynecology, orthopedics, and diseases of eye, ear, nose, and throat. The hospital assignment here provides instruction and experience on the public wards, on the private floors, and in the operating room.

Third Year

During the third year the theoretical instruction includes psychiatry, public health, professional problems, and survey of the nursing field. The assignments include experience in psychiatric nursing, in public health nursing, in obstetrics and pediatrics.

Attendance at Classes

Attendance is required at all classes for each course for which the student is registered. Absences are excused only in cases of illness or of absence from the school.

Examinations

These are both written and oral, and include practical tests. Failure in two or more subjects may necessitate increasing the length of the course.

During the three years of nursing experience in the various departments of the hospital, a monthly record of the student's nursing work is submitted by the nurse in charge. The student's standing is based upon the examinations in the theoretical subjects and these monthly records.

Graduation

The diploma of the school will be awarded to those who have successfully completed the required course of three years, and have maintained the required average in each course and phase of work.

Five-Year Program

In addition to the regular three-year course of training, the University offers a combined Academic and Nursing program leading to the degree of Bachelor of Science and a Diploma in Nursing.

The first two years of the course (or prehospital period), consisting of 68 semester hours, are spent in the College of Arts and Sciences of the University, during which period the student has an introduction to the

general cultural subjects which are considered fundamental in any college training. At least the latter of these two years must be spent in residence at College Park. The last three years are spent in the School of Nursing in Baltimore.

The degree of Bachelor of Science and the Diploma in Nursing will be conferred upon students who complete successfully the prescribed combined academic and nursing program, maintaining the required averages in each branch of the course.

Scholarships

One scholarship has been established by the Alumnae of the Training School, which entitles a nurse to a six-weeks' course at Teachers College, Columbia University, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue graduate study and special work. There are two scholarships of the value of $50.00 each: the Edwin and Leander M. Zimmerman prize for practical nursing and for displaying the greatest interest and sympathy for the patients; and the Elizabeth Collins Lee prize, given to the student having the second highest average in scholarship. An alumnae pin is presented by the Women's Auxiliary Board to a student who at the completion of three years shows marked executive ability. A prize of $25.00 is given by Mrs. John L. Whitehurst to a student who at the completion of three years shows exceptional executive ability.

SCHOOL OF PHARMACY

A. G. Du Mez, *Dean*

Faculty Council

A. G. Du Mez, Ph.G., B.S., M.S., Ph.D.
E. F. Kelly, Phar.D. Sc..D
Walter H. Hartung, B.A., Ph.D.
Clifford W. Chapman, B.A., M.Sc., Ph.D.
J. Carlton Wolf, B.Sc., Phar.D.
B. Olive Cole, Phar.D., LL.B.
H. E. Wich, Phar.D.
Thomas C. Grubb, A.B., Ph.D.
A. W. Richeson, B.S., A.M., Ph.D.

The School of Pharmacy began its existence as the Maryland College of Pharmacy. The latter was organized in 1841, and operated as an independent institution until 1904, when it amalgamated with the group of professional schools in Baltimore then known as the University of Maryland. It became a department of the present University when the old University of Maryland was merged with the Maryland State College in 1920. With but one short intermission, just prior to 1865, it has continuously exercised its function as a teaching institution.

LOCATION

The School of Pharmacy is located at Lombard and Greene Streets, in close proximity to the Schools of Medicine, Law, and Dentistry.

AIMS

The School of Pharmacy provides systematic instruction in pharmacy, the collateral sciences, and such other subjects as are deemed to be essential in the education of a pharmacist. Its chief aim is to prepare its matriculants for the intelligent practice of dispensing pharmacy, but it also offers the facilities and instruction necessary for the attainment of proficiency in the practice of the other branches of the profession and in pharmaceutical research.

RECOGNITION

This school is accredited by the American Council on Pharmaceutical Education and holds membership in the American Association of Colleges of Pharmacy. The object of these agencies is to promote the interests of pharmaceutical education; and all institutions accredited by the Council or holding membership in the Association must maintain certain minimum requirements for entrance and graduation. Through the influence of the

Council, uniform and higher standards of education have been adopted; and the fact that several States by law or by Board ruling recognize the standards of the Association is evidence of its influence.

The school is registered in the New York Department of Education, and its diploma is recognized in all States.

REQUIREMENTS FOR ADMISSION*

The requirements for admission meet fully those prescribed by the American Council on Pharmaceutical Education and the American Association of Colleges of Pharmacy.

ADMISSION TO FRESHMAN CLASS FROM SECONDARY SCHOOLS

An applicant from a secondary school may be admitted either by certificate, or by examination, or by a combination of the two methods.

Admission by Certificate

An applicant must be a graduate of a secondary school which is approved by the State Board of Education of Maryland or by an accredited agency of at least equal rank, and which requires for graduation not less than 15 units, grouped as follows:

Distribution Of Units Between Required and Elective Subjects: Required subjects 7 units, electives 8 units, total, 15 units.

Required Subjects: English, (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective Subjects: agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Total, 8 units.

A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full-year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. Double laboratory periods in any science or vocational study are considered as equivalent to one class exercise. Normally, not more than three units are allowed for four years of English. If, however, a fifth course has been taken, an extra unit will be granted.

A graduate of an approved secondary school in Maryland who meets the State certification requirements will be admitted upon presentation

*The right is reserved to refuse admission even to applicants with sufficient scholastic credit if their presence in the School would in the judgment of the Faculty Council be detrimental to the best interests of the School.

of the proper certificate from the principal. A graduate who does not meet fully these requirements may be required to present further evidence of ability to undertake college work. At the discretion of the Director of Admissions, this may include an appropriate examination. Such examination will be given during the first week of each of the months of July, August, and September at Baltimore and at other convenient places in the State. Applicants concerned will be notified when and where to report.

An applicant for admission by certificate from a secondary school not located in Maryland must be recommended by the principal, and must have attained the certification-to-college grade of the school. If the school does not have such a quality grade, then the average of the applicant's school grades must be at least ten points or one letter higher than the lowest passing grade of the school.

Admission by Examination

An applicant from a secondary school who is not eligible for admission by certificate may seek entrance through either of two types of examination: (1) he may appeal to the Director of Admissions for permission to report at the University for an examination, the result of which will be used in conjunction with the secondary school record to determine whether the applicant should be admitted, or (2) he may be admitted on presenting evidence of having passed satisfactorily other approved examinations in the subjects required for graduation from an accredited secondary school. Such examinations are offered by the College Entrance Examination Board, 431 West 117th Street, New York City; the Regents of the University of the State of New York, Albany; and the Department of Public Instruction of the State of Pennsylvania, Harrisburg.

Applications for admission must be approved, not only by the Director of Admissions, but also by the Committee on Admissions of the Faculty Council of the School of Pharmacy.

ADMISSION WITH ADVANCED STANDING

A student who presents, in addition to high school requirements, credit for work done in a school of pharmacy accredited by the American Council on Pharmaceutical Education will receive credit for the courses which correspond in length and content to those prescribed for the first three years of the curriculum and be admitted with advanced standing, provided he presents an official transcript of his record and a proper certificate of honorable dismissal.

Credit for general educational subjects will be given to a student presenting evidence of having completed work in an accredited academic institution equal in value to that outlined in this catalogue.

A transferring student in either case must satisfy the preliminary educational requirements outlined under "Requirements for Admission to Freshman Class from Secondary School."

SPECIAL STUDENTS

An applicant who cannot furnish sufficient entrance credit and who does not desire to make up the units in which he is deficient may enter as a special student and pursue all the branches of the curriculum, but will not be eligible for graduation and will not receive a diploma. The Faculty Council reserves the right to decide whether or not the preliminary training of the applicant is sufficient.

REQUIREMENTS FOR GRADUATION

The degree of Bachelor of Science in Pharmacy (B.S. in Phar.) will be conferred upon a candidate who has met the following requirements:

1. Completion of the full prescribed curriculum. The work of the last year must have been in courses offered in this school, and must have been done in residence at this school.
2. A total semester hour credit of not less than 140, with a grade point count for each of the last two years of not less than twice the total semester hours of credit scheduled for these years.

MATRICULATION AND REGISTRATION

The matriculation ticket must be procured from the office of the School of Pharmacy, and must be taken out before one enters classes. After matriculation, all students are required to register at the office of the Director of Admissions. The last date of matriculation is Sept. 28, 1940.

EXPENSES

Matriculation	*Tuition*		*Laboratory and*	*Graduation*
	Resident	*Non-Resident*	*Breakage*	
$10.00 (only once)	$220.00	$270.00	$60.00 (yearly)	$15.00

Tuition for the first semester and laboratory and breakage fee shall be paid to the Comptroller at the time of registration; and tuition for the second semester and graduation fee (the latter returned in case of failure) on or before Feb. 1, 1941.

A bulletin giving details of the course in Pharmacy may be obtained by addressing the School of Pharmacy, University of Maryland, Baltimore, Maryland.

STATE BOARD OF AGRICULTURE

816 Fidelity Building, Baltimore, Maryland.

H. C. Byrd.....Executive Officer
F. K. Haszard.....Executive Secretary

The law provides that the personnel of the State Board of Agriculture shall be the same as the Board of Regents of the University of Maryland. The President of the University is the Executive Officer of the State Board of Agriculture.

General Powers of Board: The general powers of the Board as stated in Article 7 of the Laws of 1916, Chapter 391, are as follows:

"The State Board of Agriculture shall investigate the conditions surrounding the breeding, raising, and marketing of live stock and the products thereof, and contagious and infectious diseases affecting the same; the raising, distribution, and sale of farm, orchard, forest, and nursery products, generally, and plant diseases and injurious insects affecting the same; the preparation, manufacture, quality analysis, inspection, control, and distribution of animal and vegetable products, animal feeds, seeds, fertilizers, agricultural lime, agricultural and horticultural chemicals, and biological products; and shall secure information and statistics in relation thereto and publish such information, statistics, and the results of such investigations at such times and in such manner as to it shall seem best adapted to the efficient dissemination thereof; and except where such powers and duties are by law conferred or laid upon other boards, commissions, or officials, the State Board of Agriculture shall have general supervision, direction, and control of the herein recited matters, and generally of all matters in any way affecting or relating to the fostering, protection, and development of the agricultural interests of the State, including the encouragement of desirable immigration thereto, with power and authority to issue rules and regulations in respect thereof not in conflict with the Constitution and Laws of the State or the United States, which shall have the force and effect of law, and all violations of which shall be punished as misdemeanors are punished at common law; and where such powers and duties are by law conferred or laid on other governmental agencies may co-operate in the execution and performance thereof, and when so co-operating each shall be vested with such authority as is now or may hereafter by law be conferred on the other. The powers and duties herein recited shall be in addition to and not in limitation of any power and duties which now are or hereafter may be conferred or laid upon said board."

Under the above authority and by special legislation, all regulatory work is conducted under the general authority of the State Board. This includes the following services:

LIVESTOCK SANITARY SERVICE

816 Fidelity Building, Baltimore, Maryland.

Mark Welsh.....State Veterinarian

This Service has charge of regulatory work in connection with the control of animal and poultry diseases, such as bovine tuberculosis, Bang's Disease, hog cholera, encephalomyelitis, rabies, anthrax, blackleg, and scabies in animals; and pullorum disease and blackhead in poultry. The Service cooperates in these activities with the U. S. Department of Agriculture.

Well equipped laboratories for research, diagnostic work, and the examination of specimens, are maintained at College Park, and branch laboratories for the convenience of persons residing in other sections of the State are maintained at Lombard and Greene Streets, Baltimore; Salisbury; and Centreville.

STATE HORTICULTURAL DEPARTMENT

College Park, Maryland.

T. B. Symons.....Director of Extension Service
E. N. Cory.....State Entomologist
C. E. Temple.....State Pathologist

The State Horticultural Law was enacted in 1898. It provides for the inspection of all nurseries and the suppression of injurious insects and diseases affecting plants of all kinds. The work of the department is conducted in close association with the departments of Entomology and Pathology of the University. The regulatory work is conducted under the authority of the law creating the department as well as the State Board of Agriculture. For administrative purposes, the department is placed under the Extension Service of the University on account of the close association of the work.

INSPECTION AND REGULATORY SERVICE

(Feed, Fertilizer, Lime, Insecticide and Fungicide)

L. B. Broughton, Ph.D.....State Chemist
L. E. Bopst, B.S.....Associate State Chemist
E. C. Donaldson, M.S.....Chief Inspector
W. J. Footen.....Inspector
E. M. Zentz.....Inspector
H. R. Walls.....Asst. Chemist and Micro-Analyst
L. H. Van Wormer.....Assistant Chemist
R. E. Baumgardner, B.S.....Assistant Chemist
Albert Heagy, B.S.....Assistant Chemist
J. E. Schueler, Jr., M.S.....Assistant Chemist
R. H. Flowers, B.S.....Assistant Chemist
Robert G. Fuerst.....Laboratory Helper

This Service, which is a branch of the Department of Chemistry, is charged with the enforcement of the Feed Law of this State, the Fertilizer Act, the Agricultural Lime Statute, and the Insecticide and Fungicide Law which became effective January 1, 1940. Briefly, this involves the registration and sampling of all products sold, the chemical and physical examination of samples collected, the publication of results obtained, and the prosecution of violators of the four statutes.

The people of Maryland last year spent at least twenty million dollars for their purchases of commodities covered by the above mentioned laws. The protection of our users of these products to the extent of insuring them value received for this amount of money spent is of very great importance. This protection benefits not only the farm owner who must buy fertilizer for his fields, feed for his livestock, and insecticides for his orchards, but also the city home owner who must fertilize his lawn and flowers and protect his shrubbery.

SEED INSPECTION SERVICE

College Park, Maryland.

F. S. Holmes.....Seed Inspector

The Seed Inspection Service is placed by law under the general supervision of the Agricultural Experiment Station. This service takes samples of seed offered for sale, and tests them for quality and germination.

STATE DEPARTMENT OF FORESTRY

1411 Fidelity Building, Baltimore, Maryland.

F. W. Besley.....State Forester

The Department of Forestry was created and organized to protect and develop the valuable forest resources of the State; to carry on a campaign of education; and to instruct counties, towns, corporations, and individuals as to the advantages and necessity of protecting from fire and other enemies the timber lands of the State. All correspondence and inquiries should be addressed to The State Forester, 1411 Fidelity Building, Baltimore.

Studies have been made of the timber resources of each of the twenty-three counties; and the statistics and information collected are published for free distribution, accompanied by a valuable timber map. The Department also administers six state forests, comprising about 6,000 acres. The Roadside Tree Law directs the Department of Forestry to care for trees growing within the right-of-way of any public highway in the State. A State Forest Nursery, established in 1914, is located at College Park.

STATE WEATHER SERVICE

Edward B. Mathews.....Director
Johns Hopkins University, Baltimore, Maryland.
John R. Weeks.....Meteorologist
U. S. Custom House, Baltimore, Maryland.

The State Weather Service compiles local statistics regarding climatic conditions and disseminates information regarding the climatology of Maryland under the Regents of the University of Maryland through the State Geologist as successor to the Maryland State Weather Service Commission. The State Geologist is ex-officio Director, performing all the functions of former officers with the exception of Meteorologist, who is commissioned by the Governor and serves as liaison officer with the United States Weather Bureau. All activities except clerical are performed voluntarily.

MARYLAND GEOLOGICAL SURVEY

Edward B. Mathews.....State Geologist
Johns Hopkins University, Baltimore, Maryland.

The Geological and Economic Survey Commission is authorized under the general jurisdiction of the Board of Regents of the University of Maryland to conduct the work of this department. The State Geological and Economic Survey is authorized to make the following:

Topographic surveys showing the relief of the land, streams, roads, railways, houses, etc.

Geological surveys showing the distribution of the geological formations and mineral deposits of the State.

Agricultural soil surveys showing the areal extent and character of the different soils.

Hydrographic surveys to determine the available waters of the State for potable and industrial uses.

Magnetic surveys to determine the variation of the needle for land surveys.

A permanent exhibit of the mineral wealth of the State in the old Hall of Delegates at the State House, to which new materials are constantly added to keep the collection up-to-date.

SECTION III

Description Of Courses

The courses of instruction described in this section are offered at College Park. Those offered in the Baltimore Schools are described in the separate announcements issued by the several schools.

For the convenience of students in making out schedules of studies, the subjects in the following Description of Courses are arranged alphabetically:

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Courses for undergraduates are designated by the numbers 1-99; courses for advanced undergraduates and graduates, 100-199; courses for graduates, 200-299.

The letter following the number of the course indicates the semester in which the course is offered: thus, 1 f is offered the first semester; 1 s, the second semester; 1 y, the year; 1 f and s indicates that the course is repeated in the second semester; 1 f or s that the course may be given in either the first or the second semester. A capital S after a course number indicates that the course is offered in the summer session only.

The number of hours' credit is shown by the arabic numeral in parentheses after the title of the course.

A separate schedule of courses is issued each semester, giving the hours, places of meeting, and other information required by the student in making out his program. Students will obtain these schedules when they register.

Students are advised to consult the statements of the colleges and schools in Section II when making out their programs of studies; also Regulation of Studies, Section I.

AGRICULTURAL ECONOMICS AND FARM MANAGEMENT*

PROFESSOR DEVAULT; LECTURER BAKER; ASSOCIATE PROFESSORS WALKER, CODDINGTON; ASSISTANT PROFESSOR HAMILTON; MR. POFFENBERGER.

A. E. 1 f. Agricultural Industry and Resources (3)—Two lectures; one laboratory.

A descriptive course dealing with agriculture as an industry and its relation to climate, physiography, soils, population centers and movements, commercial development, transportation, etc.; the existing agricultural resources of the world and their potentialities, commercial importance, and geographical distribution; the chief sources of consumption; the leading

*See also related courses in Economics and in Business Administration.

trade routes and markets for agricultural products. The history of American agriculture is briefly reviewed. Emphasis is upon the chief crop and livestock products of the United States.

A. E. 2 s. Farm Organization (3)—Three lectures.

A study of farm organization consisting of an introduction to the complex problems of the agricultural industry as these problems affect the life and welfare of the individual farmer. More specifically, the course includes the choice of agriculture as a vocation; adaptation of farms to particular enterprises; types of farming and factors influencing the same; farm returns; the use of labor, machinery, and land in production; combination of crop and livestock enterprises as they affect the farmer's income; and a study of successful and unsuccessful Maryland farms.

For Advanced Undergraduates and Graduates

A. E. 100 f. Farm Economics (3)—Three lectures. Prerequisite, Econ. 51y or 57.

A general course in agricultural economics, with special reference to population trend, agricultural wealth, land tenure, farm labor, agricultural credit, the tariff, price movements, and marketing. (DeVault.)

A. E. 102 s. Marketing of Farm Products (3)—Three lectures. Prerequisite, Econ. 51y or 57.

A complete analysis of the present system of transporting, storing, and distributing farm products, and a basis for intelligent direction of effort in increasing the efficiency of marketing methods. (DeVault.)

A. E. 103 f. Cooperation in Agriculture (3)—Three lectures.

Historical and comparative development of farmers' cooperative organizations with some reference to farmer movements; reasons for failure and essentials to success; commodity developments; the Federal Farm Board; banks for cooperatives; present trends. (Poffenberger.)

A. E. 104 s. Farm Finance (3)—Three lectures.

Agricultural Credit requirements; development and volume of business of institutions financing agriculture; financing specific farm organizations and industries. *Farm insurance*—fire, crop, livestock, and life insurance. with special reference to mutual development—how provided, benefits, and needed extension. (Poffenberger.)

A. E. 105 s. Food Products Inspection (2)—One lecture; one laboratory.

This course, arranged by the Department of Agricultural Economics in cooperation with the State Department of Markets and the United States Department of Agriculture, is designed to give students primary instruction in the grading, standardizing, and inspection of fruits and vegetables, dairy products, poultry products, meats, and other food products. Theoretical instruction covering the fundamental principles will be given in the form of lectures, while the demonstrational and practical work will be conducted through laboratories and field trips to Washington, D. C., and Baltimore. (Staff.)

A. E. 106 s. Prices of Farm Products (3)—Two lectures; one laboratory.

A general course in prices, price relationships, and price analysis, with emphasis on prices of agricultural products. (Poffenberger.)

A. E. 107 s. Analysis of the Farm Business (3)—One lecture; two laboratories.

A concise practical course in the keeping, summarizing, and analyzing of farm accounts. (Hamilton.)

A. E. 108 f. Farm Management (3)—Three lectures.

A study of the organization and operation of Maryland farms from the standpoint of efficiency and profits. Students will be expected to make an analysis of the actual farm business and practices of different types of farms located in various parts of the State, and to make specific recommendations as to how these farms may be organized and operated as successful businesses. (Hamilton.)

A. E. 109 y. Research Problems (1-3).

With the permission of the instructor, students will work on any research problems in agricultural economics which they may choose, or a special list of subjects will be made up from which the students may select their research problems. There will be occasional class meetings for the purpose of making reports on progress of work, methods of approach, etc. (DeVault.)

A. E. 111 f. Land Economics (3)—Three lectures.

Concepts of land economy are discussed, as well as conditions and tendencies influencing land requirements in relation to land resources. A study of major land problems and land policies including erosion and its control; farm tenancy; tax delinquency and tax reverted lands; land use planning and production control; public policies for facilitating land use adjustments; and directional measures for discouraging undesirable land uses. (Coddington.)

For Graduates

A. E. 201 y. Special Problems in Farm Economics (3).

An advanced course dealing more extensively with some of the economic problems affecting the farmer; such as land problems, agricultural finance, farm wealth, agricultural prices, transportation, and special problems in marketing and cooperation. (Staff.)

A. E. 202 y. Seminar (1-2).

This course will consist of special reports by students on current economic subjects, and a discussion and criticism of the same by the members of the class and the instructor. (DeVault.)

A. E. 203. Research (8).

Students will be assigned research in agricultural economics under the supervision of the instructor. The work will consist of original investigation in problems of agricultural economics, and the results will be presented in the form of theses. (DeVault.)

A. E. 210 s. Taxation in Relation to Agriculture (2)—Two lectures.

Principles and practices of taxation in their relation to agriculture, with special reference to the trends of tax levies, taxation in relation to land utilization, taxation in relation to ability to pay and benefits received; a comparison of the following taxes as they affect agriculture: general property tax, income tax, sales tax, gasoline and motor vehicle license taxes, inheritance tax, and special commodity taxes; possibilities of farm tax reduction through greater efficiency and economies in local government. (Walker, DeVault.)

A. E. 211 f. Agricultural Taxation in Theory and Practice (3)—Two lectures; one laboratory period a week.

Ideals in taxation; economic effects of taxation upon the welfare of society; theory of taxation: the general property tax, business and license taxes, the income tax, the sales tax, special commodity taxes, inheritance and estate taxes; recent shifts in taxing methods and recent tax reforms; conflicts and duplication in taxation among governmental units; practical and current problems in taxation. (Walker, DeVault.)

A. E. 212 f, 213 s. Land Utilization and Agricultural Production (3, 2)—Two double lecture periods a week.

A presentation by regions of the basic physical conditions of the economic and social forces that have influenced agricultural settlement, and of the resultant utilization of the land and production of farm products; followed by a consideration of regional trends and interregional shifts in land utilization and agricultural production, and the outlook for further changes in each region. (Baker.)

A. E. 214 s. Consumption of Farm Products and Standards of Living (3)—Two double lecture periods a week.

A presentation of the trends in population and migration for the Nation and by States; of trends in exports of farm products and their regional significance; of trends in diet and in per capita consumption of non-food products; followed by a consideration of the factors that appear likely to influence these trends in the future; and of the outlook for commercial as contrasted with a more self-sufficing agriculture. (Baker.)

A. E. 215 s. Advanced Agricultural Cooperation (2)—Two lectures.

An appraisal of agricultural cooperation as a means of improving the financial status of farmers. More specifically, the course includes a critical analysis and appraisal of specific types and classes of cooperatives. (Poffenberger.)

AGRICULTURAL EDUCATION AND RURAL LIFE

PROFESSORS COTTERMAN, CARPENTER, ASSISTANT PROFESSOR AHALT.

For Advanced Undergraduates and Graduates

R. Ed. 101 f, 102 s. Farm Practicums and Demonstrations (1, 1)—One laboratory. Cannot be used for graduate credit.

This course is designed to assist the student in relating the learning acquired in the several departments of the University with the problems of doing and demonstrating which he faces in the field and in the classroom as a teacher. It aims particularly to check his training in the essential practicums and demonstrations in vocational agriculture, and to introduce him to the conditions under which such activities must be carried on in the patronage areas and laboratories of vocational departments. Laboratory practice in deficiencies required. (Ahalt.)

R. Ed. 107 s. Observation and the Analysis of Teaching for Agricultural Students (3)—Two lectures; one laboratory. Open to juniors and seniors; required of juniors in Rural Life and Agricultural Education.

This course deals with an analysis of pupil learning in class groups. (Cotterman, Ahalt.)

R. Ed. 109 f. Teaching Secondary Vocational Agriculture (3)—Three lectures. Prerequisites, R. Ed. 107 s; A. H. 2; D. H. 1; P. H. 1; Soils 1; Agron. 1, 2; Hort. 1, 11; Agr. Engr. 101, 104; A. E. 2, 102, 108 f.

A comprehensive course in the work of high school departments of vocational agriculture. It emphasizes particularly placement, supervised farming programs, the organization and administration of Future Farmer work, and objectives and methods in all-day, continuation, and adult instruction. (Cotterman, Ahalt.)

R. Ed. 110 s. Rural Life and Education (3)—Three lectures.

An intensive study of the educational agencies at work in rural communities, stressing an analysis of school patronage areas, the possibilities of normal life in rural areas, early beginnings in rural education, and the conditioning effects of economic differences. The course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people. (Cotterman.)

R. Ed. 112 s. Departmental Organization and Administration (1)—Two lectures. Prerequisites, R. Ed. 107 s, 109 f.

The work of this course is based upon the construction and analysis of administrative programs for high school departments of vocational agriculture. As a project, each student prepares and analyzes in detail an administrative program for a specific school. Investigations and reports. (Ahalt.)

R. Ed. 114 s. Teaching Farm Mechanics in Secondary Schools (1)—One lecture.

Objectives in the teaching of farm shop and farm mechanics; contemporary developments; determination of projects; shop management; shop programs; methods of teaching; equipment; materials of construction; special projects. (Carpenter.)

R. Ed. 120 y. Practice Teaching (5 to 6)—Prerequisites, R. Ed. 107 s, 109 f. First semester, 2 credits. Second semester, 3 to 4 credits.

Under the direction of a critic teacher the student in this course is required to analyze and prepare special units of subject matter, plan lessons, and teach in cooperation with the critic teacher, exclusive of observation, not less than 125 clock hours of day class vocational agriculture and related subjects. A sixth semester hour may be earned by supervising home projects in the field not less than twenty-five clock hours, or teaching the equivalent time in part-time or evening classes, or any combination of these three types of work. (Cotterman.)

For Graduates

R. Ed. 201 f, 202 s. Rural Life and Education (3, 3)—Prerequisite, R. Ed. 110 s, or equivalent.

A sociological approach to rural education as a movement for a good life in rural communities. It embraces a study of the organization, administration, and supervision of the several agencies of public education as component parts of this movement and as forms of social economy and human development. Discussions, assigned readings, and major term papers in the field of the student's special interest. (Cotterman.)

R. Ed. 207 f, 208 s. Problems in Vocational Agriculture, Related Science, and Shop (2, 2).

In this course special emphasis is placed upon the current problems facing teachers of vocational agriculture. It is designed especially for persons who have had several years of teaching experience in this field. The three phases of the vocational teacher's program—all day, part-time, and adult work—receive attention. Discussions, surveys, investigations, and reports. (Cotterman.)

R. Ed. 250 y. Seminar in Rural Education (2-4).

Problems in the organization, administration, and supervision of the several agencies of rural education. Investigations, papers, and reports. (Cotterman.)

R. Ed. 251. Research (2-4)—Credit hours according to work done. Students must be especially qualified by previous work to pursue with profit the research to be undertaken. (Cotterman.)

AGRICULTURAL ENGINEERING

PROFESSOR CARPENTER; ASSOCIATE PROFESSOR KREWATCH; ASSISTANT PROFESSOR BURKHARDT.

For Advanced Undergraduates and Graduates

Agr. Engr. 101 f. Farm Machinery (3)—Two lectures; one laboratory.

A study of the design and adjustments of modern horse- and tractor-drawn machinery. Laboratory work consists of detailed study of actual machines, their calibration, adjustment, and repair. (Carpenter.)

Agr. Engr. 102 s. Gas Engines, Tractors, and Automobiles (3)—Two lectures; one laboratory.

A study of the design, operation, and repair of the various types of internal combustion engines used in farm practice. (Carpenter.)

Agr. Engr. 104 f. Farm Mechanics (1)—One laboratory.

This course consists of laboratory exercises in practical farm shop and farm equipment repair and construction projects. It is offered primarily for prospective teachers of vocational agriculture. (Carpenter.)

Agr. Engr. 105 f. Farm Buildings (2)—Two lectures.

A study of all types of farm structures; also of farm heating, lighting, water supply, and sanitation systems. (Carpenter.)

Agr. Engr. 107 s. Farm Drainage (2)—One lecture; one laboratory.

A study of farm drainage systems, including theory of tile under-drainage, the depth and spacing of laterals, calculation of grades, methods of construction and the use of engineering instruments. A smaller amount of time will be spent upon drainage by open ditches, and the laws relating thereto. (Carpenter.)

AGRONOMY

Division of Crops

PROFESSOR KEMP; ASSOCIATE PROFESSOR EPPLEY; MR. A. W. WOODS.

Agron. 1 f. Cereal Crop Production (3)—Two lectures; one laboratory.

History, distribution, adaptation, culture, improvement, and uses of cereal, forage, pasture, cover, and green manure crops.

Agron. 2 s. Forage Crop Production (3)—Two lectures; one laboratory.

Continuation of Agron. 1 f.

For Advanced Undergraduates and Graduates

Agron. 102 f. Technology of Crop Quality (2 or 3)—Students, other than those specializing in agronomy, may register for either portion of the course. Part one *(Grading Farm Crops)*—one lecture; one laboratory. The market classifications and grades as recommended by the United States Bureau of Markets, and practice in determining grades. Part two *(Grain, Hay, and Seed Judging and Identification)*—one laboratory. (Eppley.)

Agron. 103 f. Crop Breeding (2)—One lecture; one laboratory. Prerequisite, Gen. 101 f.

The principles of breeding as applied to field crops, and methods used in crop improvement. (Kemp.)

Agron. 104 f, 105 s. Selected Crop Studies (1-2, 1-2)—Credit according to work done. This course is intended primarily to give an opportunity for advanced study of crop problems or crops of special interest to students. (Staff.)

Agron. 121 s. Methods of Crop and Soil Investigations (2)—Two lectures.

A consideration of agricultural investigation methods at the various experiment stations, and the standardization of such methods. (Staff.)

For Graduates

Agron. 201 y. Crop Breeding (4-10)—Credits determined by work accomplished.

The content of this course is similar to that of Agron. 103 f, but will be adapted more to graduate students, and more of a range will be allowed in choice of material to suit special cases. (Kemp.)

Agron. 203 y. Seminar (2)—One report period each week.

The seminar is devoted largely to reports by students on current scientific publications dealing with problems in crops and soils. (Staff.)

Agron. 209. Research (6-8)—Credit determined by work accomplished.

With the approval of the head of the department, the student will be allowed to work on any problem in agronomy, or he will be given a list of suggested problems from which he may make a selection. (Staff.)

Division of Soils

PROFESSOR THOMAS; DR. MADIGAN, DR. BODILY.

Soils 1 f and s. Soils and Fertilizers (3-5)—Three lectures; two two-hour laboratory periods. Prerequisites, Geol. 1 f, Chem. 1 y, Chem. 12 y.

A study of the principles involved in soil formation and classification. The influence of physical, chemical, and biological activities on plant growth, together with the use of fertilizers in the maintenance of soil fertility. Lectures may be taken without the laboratory.

For Advanced Undergraduates and Graduates

Soils 102 s. Soil Management (3)—Two lectures; one laboratory. Prerequisite, Soils 1.

A study of the soil fertility systems of the United States, with special emphasis on the interrelation of total to available plant food, the balance of nutrients in the soil with reference to various cropping systems, and the economic and national aspect of permanent soil improvement. The practical work includes laboratory and greenhouse practice in soil improvement. (Thomas.)

Soils 103 f. Soil Geography (3)—Two lectures; one discussion period.

A study of the genealogy of soils, the principal soil regions of North America, and the classification of soils. Field trips will be made to emphasize certain important phases of the subject. (Thomas.)

Soils 112 s. Soil Conservation (3)—Three lectures.

A study of the factors relating to soil preservation, including the influence of cropping and soil management practices, fertilizer treatments, constructive and destructive agencies of man and nature on conservation, history of research in soil erosion, and field trips to soil demonstration areas. (Thomas.)

For Graduates

Soils 201. Special Problems and Research (10-12).

Original investigation of problems in soils and fertilizers. (Staff.)

Soils 202 y. Soil Science (3-5 f, 2 s)—Three lectures and two laboratories first semester; two lectures the second semester. Prerequisites, geology, soils, and organic and quantitative chemistry. The lectures and laboratory may be taken separately.

A discussion of the physical, chemical, and biological processes involved in the development of soils with special emphasis on soil water, organic matter, structure colloids, base exchange, and plant food deficiencies and their relation to soil fertility. The laboratory involves a study of the methods used in soil investigation. (Thomas.)

Soils 204 s. Soil Micro-Biology (3)—Two lectures; one laboratory. Prerequisite, Bact. 1.

A study of the micro-organisms of the soil in relation to fertility. It includes the study of the bacteria of the soil concerned in the decomposition of organic matter, nitrogen fixation, nitrification, and sulphur oxidation and reduction, and deals also with such organisms as fungi, algae, and protozoa.

The course includes a critical study of the methods used by experiment stations in soil investigational work. (Bodily.)

ANIMAL AND DAIRY HUSBANDRY

PROFESSORS IKELER, MEADE, TURK, LEINBACH, ENGLAND; ASSOCIATE PROFESSOR BERRY; ASSISTANT PROFESSOR HUGHES; MR. OUTHOUSE; MR. WIEDEMER.

Animal Husbandry

A. H. 2 s. General Animal Husbandry (2)—Two laboratories.

Types and market classes of beef cattle, sheep, hogs, horses. An outline of the types and market classes of cattle, hogs, sheep, and horses, supplemented by trips to large typical central livestock markets. Emphasis is placed on the selection and judging of the various classes of livestock. A review of the entire commercial livestock and meat industry.

For Advanced Undergraduates and Graduates

A. H. 100 f. Breeds of Horses and Beef Cattle (2)—One lecture; one laboratory. Prerequisite, A. H. 2 s.

A complete review of the types, characteristics, and general history of the various breeds of draft horses and beef cattle. This course is designed to familiarize students with the general use and adaptability of the breeds of draft horses and beef cattle that are important in America. Laboratory consists of comparing specimens of the various breeds, with emphasis on breed characteristics of each. (Leinbach.)

A. H. 101 s. Breeds of Sheep and Swine (2)—One lecture; one laboratory. Prerequisite, A. H. 2 s.

A complete review and history of the breeds of sheep and hogs which are important in our livestock industry. Laboratory work consists of the study and comparison of the breed characteristics of each. (Not given 1940-41.) (Leinbach.)

A. H. 102 f. Feeds and Feeding (3)—Two lectures; one laboratory. Junior year. Prerequisites, Chem. 1 y and 12 Ay.

Elements of nutrition, source, characteristics, and adaptability of the various feeds to the several classes of livestock. Feeding standards, the calculation and compounding of rations. (Ikeler, Meade.)

A. H. 103 s. Principles of Breeding (3)—Two lectures; one laboratory. Senior year. Prerequisite, Gen. 101 f.

This course covers the practical aspects of animal breeding, including heredity, variation, selection, development, systems of breeding, and pedigree work. (Meade.)

A. H. 105 s. Livestock Management (2)—Two laboratories. Prerequisite, A. H. 2 s.

A thorough livestock management course designed to familiarize students with the practical handling and management of livestock. Students are given actual practice and training in the maintaining, feeding, fitting, and preparation of animals for show and work purposes. (Outhouse.)

A. H. 106 f. Meat and Meat Products (1)—One laboratory. Prerequisite, A. H. 2 s.

A course designed to give the student information on the processing and handling of our meat supply. Included is a study of the physical and structural differences which affect the value of meat and its products. Numerous trips will be made to packing houses and meat distributing centers during the course. (Leinbach, Carroll.)

A. H. 107 s. Livestock Judging (2)—Two laboratories. Prerequisite, A. H. 2 s.

A laboratory course in the judging of hogs, sheep, beef cattle, and draft horses. Laboratory specimens are drawn from the college herds and flocks, with occasional supplemental trips to outstanding State herds. (Outhouse, Leinbach.)

A. H. 108 f. Advanced Livestock Judging (2)—Two laboratories. Prerequisite, A. H. 107 s.

A course for advanced training in the selection and judging of animals of the different breeds and market classes of sheep, hogs, beef cattle, and draft horses. The University of Maryland livestock judging team is selected from the best student judges enrolled in this course. A wide variety of laboratory animals are used. Practice judging includes occasional judging trips among some of the outstanding State herds. (Outhouse, Leinbach.)

A. H. 109 f. Beef Cattle and Horse Production (3)—Three lectures. Prerequisite, A. H. 105 s.

A full review of the principles underlying the practical and economical production of beef cattle and draft horses, particularly treating such angles as the selection of breeding animals, the raising, feeding, and preparation of beef cattle and draft horses for breeding, market, and work purposes. (Leinbach, Outhouse.)

A. H. 110 s. Sheep and Swine Production (3)—Three lectures. Prerequisite, A. H. 105 s.

A course for those interested in the principles and practices underlying economical and efficient sheep and swine production for both commercial and breeding purposes. Full treatment of the topics of feeding, managing, producing, and marketing sheep and hogs. (Outhouse, Leinbach.)

A. H. 111 f. Livestock Markets and Marketing (2)—Two lectures. Prerequisite, A. H. 2 s.

A comprehensive study of the marketing of sheep, beef cattle, hogs and draft horses, and practices found in the American livestock market system together with the facilities available for the marketing and merchandising of all kinds of livestock and meat products. (Leinbach, Ikeler.)

A. H. 112 s. Geography of Livestock Production (2)—Two lectures.

A course designed to familiarize students with livestock management, production, and marketing practices in other parts of the world. Consideration is given to the bearing of foreign livestock and meat industries on this country's production, including an insight into our foreign markets. (Not given in 1940-41.) (Leinbach, Outhouse.)

A. H. 113 f. Animal Nutrition (3)—Three lectures. Prerequisites, Chem. 12 Ay and A. H. 102 f.

Processes of digestion, absorption, and metabolism of nutrients, nutritional balances, nature of nutritional requirements for growth, production, and reproduction. (Meade.)

Light Horse Section

With the cooperation of Dr. A. L. Brueckner of the Veterinary Science Section of the University, and Mr. Humphrey Finney of the Maryland Horse Breeders' Association and Editor of *The Maryland Horse*, two courses are scheduled in light horse production.

A. H. 115 f. Light Horse Production (1)—One lecture. Prerequisite, A. H. 2 s.

A study of the light horse breeds with emphasis on the types and usefulness of each. A full discussion of principles of selection and breeding of light horses is included in this course. (Brueckner, Finney, Ikeler.)

A. H. 116 s. Advanced Light Horse Production (1)—One lecture. Prerequisite, A. H. 115 f.

This course is a continuation of A. H. 115 f. Included is a study of the organization of the light horse farm, proper methods of feeding and training; control of disease; treatment and care of injuries; sale of surplus stock. (Brueckner, Finney, Ikeler.)

For Graduates

A. H. 201 f or s. Special Problems in Animal Husbandry (2-3)—Credit given in proportion to amount of work completed.

Problems which relate specifically to the character of work the student is pursuing will be assigned. (Staff.)

A. H. 202 f or s. Seminar (1).

Students are required to prepare papers based upon current scientific publications relating to animal husbandry or upon their research work for presentation before and discussion by the class. (Staff.)

A. H. 203. Research.—Credit to be determined by the amount and character of work done.

With the approval of the head of the department, students will be required to pursue original research in some phase of animal husbandry, carry the same to completion, and report the results in the form of a thesis. (Meade and Staff.)

A. H. 204 s. Advanced Breeding (2)—Two lectures. Prerequisites, Gen. 101 f and A. H. 103 s.

This course deals with the more technical phases of heredity, variation recombination, and mutation; selection and selection indices; breeding systems; specific inheritance in farm animals, and with biometry as applied to animal breeding. (Meade.)

A. H. 205 s. Advanced Livestock Marketing (2)—Two lectures. Prerequisite A. H. 111 f.

An advanced study of central, terminal and other systems of livestock marketing and the relationship of certain transportation and market privileges. Students will be required to make original and comparative studies from Government reports and its Market News Service. (Ikeler.)

DAIRY HUSBANDRY

Dairy Production

D. H. 1 f. Fundamentals of Dairying (3)—Two lectures; one laboratory. Sophomore year. Prerequisite, Chem. 1 y.

This course includes a general survey of the dairy manufacturing industry; the physical and chemical properties of milk; the production and distribution of dairy products; the Babcock Test and other quantitative tests; simple qualitative tests for adulterants and preservatives; ice cream, butter,

cheese, and condensed products, and judging and scoring market milk. Laboratory fee $2.00.

D. H. 2 s. Fundamentals of Dairying (3)—Two lectures; one laboratory. Sophomore year. Prerequisite, D. H. 1 f.

This is a general course covering very briefly the origin, development, and characteristics of the dairy breeds of cattle; feeding, breeding, and management of the dairy herd; calf raising, dairy farm buildings and equipment; bull associations and dairy herd improvement associations; the production of high-quality milk; elementary judging practice; and the fitting and showing of dairy cattle.

For Advanced Undergraduates and Graduates

D. H. 101 f. Dairy Cattle Feeding and Herd Management (3)—Two lectures; one laboratory. Junior or senior year. Prerequisites, D. H. 2 s, and A. H. 102 f.

A comprehensive course in dairy cattle feeding and herd management designed for advanced students in dairy husbandry. It covers the efficient feeding of the dairy herd, including milking cows, dairy heifers, calves, and dairy bulls; common diseases of dairy cattle and their treatment; dairy farm sanitation; problems of herd management; dairy barns and equipment; and the factors essential for success in the dairy farm business. (Turk.)

D. H. 103 s. Dairy Cattle Judging (2)—Two laboratories. Junior year. Prerequisite, D. H. 2 s.

This course is designed to give instruction in the comparative judging of dairy cattle. Trips to various farms for judging practice will be made. Such dairy cattle judging teams as may be chosen to represent the University will be selected from among those taking this course. (Turk.)

D. H. 104 f. Advanced Dairy Cattle Judging (1)—One laboratory. Senior year. Prerequisite, D. H. 103 s.

Advanced work in judging dairy cattle. Credit only to students who do satisfactory work in competition for the dairy cattle judging team. (Turk.)

D. H. 105 s. Dairy Breeds and Breeding (2)—One lecture; one laboratory. Prerequisite, D. H. 2 s, Gen. 101 f, A. H. 103 s.

A study of the historical background; characteristics; prominent blood lines; noted families and individuals of the major dairy breeds. A survey of breeding systems; genetic and environmental factors as applied to dairy cattle. The use of the pedigree, various indices, herd and production records in selection and formulating breeding programs. (Berry.)

D. H. 106 f, 107 s. Dairy Cattle Management and Barn Experience (3, 3)—Junior or senior year. Prerequisite, D. H. 2s.

Each student will be assigned special work under direction of an instructor at the University of Maryland Dairy barn, and will continue such assignment until he is proficient. Special emphasis will be given to all management problems. (Turk.)

D. H. 108 f. History and Geography of Dairying (2)—Two lectures. Junior year.

A study of the history and development of dairying in the various countries of the world, with special reference to the importance of the industry, to breeds of dairy cattle and their development, to dairy products manufactured, and to the importation and exportation of dairy products. (Berry.)

Dairy Manufacturing

For Advanced Undergraduates and Graduates

D. H. 109 f. Cheese Making (3)—One lecture; two laboratories. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making casein and cheese, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, $2.00. (England.) (Not given 1940-41.)

D. H. 110 f. Butter Making (2)—One lecture; one laboratory. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making butter, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, $1.00. (Not given 1940-41.) (England.)

D. H. 111 s. Concentrated Milks (2)—One lecture; one laboratory. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making condensed milk, evaporated milk, and milk powder, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, $1.00. (Not given 1940-41.) (England.)

D. H. 112 s. Ice Cream Making (3)—One lecture; two laboratories. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making ice cream, sherbets, and ices, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, $2.00. (Not given 1940-41.) (England.)

D. H. 113 f. Market Milk (5)—Three lectures; two laboratories. Prerequisites, D. H. 1 f and Bact. 1.

Commercial and economic phases of market milk, with special reference to its transportation, processing, and distribution; certified milk; commercial buttermilk; milk laws; duties of milk inspectors; distribution; milk plant construction and operation. Laboratory practice includes visits to local dairies. Laboratory fee, $3.00. (England.)

D. H. 114 s. Analysis of Dairy Products (3)—One lecture; one four-hour laboratory. Prerequisites, D. H. 1 f, Bact. 1, Chem. 4 and 12 y.

The application of chemical and bacteriological methods to commercial dairy practice; analysis by standard chemical, bacteriological, and factory methods; standardization and composition control; tests for adulterants and preservatives. Laboratory fee, $3.00. (England.)

D. H. 115 s. Grading Dairy Products (1)—One laboratory. Junior year. Prerequisite, D. H. 1 f.

Market grades and the judging of milk, butter, cheese, and ice cream in the commercial field. Laboratory fee, $3.00. (England, Wiedemer.)

D. H. 116 s. Dairy Mechanics (2)—Two laboratories. Junior year. Prerequisite, D. H. 1 f.

The theory and operation of the compression system of mechanical refrigeration. Construction, design, and care of dairy equipment, repairing, soldering, pipe fitting, and wiring. Laboratory fee, $2.00. (Hughes.)

D. H. 117 s. Dairy Accounting (1)—One laboratory. Senior year. Prerequisite, D. H. 1 f.

Methods of accounting in the market milk plant and dairy manufacturing plants. (Hughes.)

D. H. 118 f. Advanced Grading of Dairy Products (1)—One laboratory. Senior year. Prerequisite, D. H. 115 s.

Advanced work in the judging of milk, butter, cheese, and ice cream. Open only to students who comprise the dairy products judging team. Laboratory fee, $3.00. (England, Wiedemer.)

D. H. 119 f, 120 s. Dairy Literature (1, 1)—One lecture. Prerequisite, D. H. 1 f and D. H. 2 s.

Presentation and discussion of current literature in dairying. (England, Berry.)

D. H. 121 f. Dairy Plant Experience (2)—Senior year. Prerequisite, 10 hours of Dairy Husbandry.

Ten weeks' practical experience or its equivalent (following completion of junior year) in an approved market milk plant or factory manufacturing dairy products. A written report of the work is required. (England.)

D. H. 122 s. Dairy Plant Experience (1)—Senior year. Prerequisite, D. H. 1 f.

Two hundred hours' practical experience in the University of Maryland Dairy Manufacturing Plant. The grade will be based on the dependability and efficiency of the student in performing work assigned. (England, Hughes.)

D. H. 123 y. Methods of Dairy Research (1-3)—Credit in accordance with the amount and character of work done.

This course is designed especially to meet the needs of those dairy students who plan to enter the research or technical field of dairying. Methods of conducting dairy research and the presentation of results are stressed. A research problem which relates specifically to the work the student is pursuing will be assigned. (England, Berry.)

For Graduates

D. H. 201 f. Advanced Dairy Production (3).

A study of the newer discoveries in animal nutrition, breeding, and management. Readings and assignments. (Turk.)

D. H. 202 f. Dairy Technology (2)—Two lectures.

A consideration of milk and dairy products from the physiochemical point of view. (England.)

D. H. 203 s. Milk Products (2)—Two lectures.

An advanced consideration of the scientific and technical aspects of milk products. (England.)

D. H. 204 f or s. Special Problems in Dairying (1-3)—Credit in accordance with the amount and character of work done.

Special problems which relate specifically to the work the student is pursuing will be assigned. (Staff.)

D. H. 205 f or s. Seminar (1).

Students are required to prepare papers, based upon research in progress or completed, for presentation before and discussion by the class. (Staff.)

D. H. 206. Research—Credit to be determined by the amount and quality of work done.

The student will be required to pursue, with the approval of the head of the department, an original investigation in some phase of dairy husbandry, carry the same to completion, and report results in the form of a thesis. (Meade, Turk, Berry, England.)

*ART

PROFESSOR MARTI; ASSOCIATE PROFESSOR HIGHBY.

Art 1 f. Art in Ancient Civilization (2)—Two lectures. Egypt and the Ancient Near East up to 1000 B. C.

A survey of the architectural remains, sculpture, painting, and minor arts of Egypt, Sumeria, Babylonia, and Palestine. Attention is given to the stages of human history and cultural development reflected in the archaeological and artistic remains. Lectures are freely illustrated by slides.

Art 2 s. Art in Ancient Civilization (2)—Two lectures. The Near East after 1000 B. C. and the Pre-Greek Civilization of the Eastern Mediterranean.

Hittite, Assyrian, and Persian art are chiefly considered in the first half of the course. The important archaeological discoveries of Heinrich Schlie-

*For other courses in Art see page 328.

mann and Sir Arthur Evans at Troy, the Greek mainland, and in Crete are then treated in detail. Conducted with the use of slides. (Not given in 1940-41.)

Art 3 f. Art in Classical Civilization (2)—Two lectures. Greek art.

Architecture, sculpture, and vase-painting. The course covers the archaeic period, treats in detail the highly developed art-forms of the Golden Age, and shows the main trends in the late Greek or Hellenistic era. Emphasis is placed on the interrelation between motifs as they appear on art objects and in Greek literature. Lectures illustrated by slides. (Not given in 1940-41.)

Art 4 s. Art in Classical Civilization (2)—Two lectures. Monuments of Ancient Rome.

A survey of the architectural remains and decorative art of the Romans. The related Etruscan art development will also be briefly considered, as well as the remains of Pompeii and important outlying sites in the Roman world. The study of the monuments in Rome itself will be carried to the early Christian period. Illustrated with slides.

Art 11 s. Medieval Art (2)—Two lectures.

An introduction to the figurative arts, and to the development of style. European architecture, sculpture, and painting, from the third century A. D. to the Renaissance, studied by means of slides.

Art 12 s. Modern Art (2)—Two lectures.

Similar to Art 11 s. European art from the Renaissance to the present. Illustrated lectures. Occasional visits to the museums in Washington. (Not given in 1940-41.)

Art 21 f. German Art (2)—Two lectures.

A survey of the development of German architecture, sculpture, painting, and graphic art, from the time of Charlemagne to the early twentieth century. Similar developments in German literature will be considered. A knowledge of German is desirable, though not a prerequisite. (Not given in 1940-41.)

Art 22 f. French Art (2)—Two lectures.

Similar to Art 21 f. French art from Charlemagne to the present. Similar developments in French literature will be considered. A knowledge of French is desirable, though not a prerequisite. (Not given in 1940-41.)

Art 23 f. Italian Art (2)—Two lectures.

A study of the development of Italian art since the third century A. D., with special emphasis on the Renaissance and the Baroque. Reference will be made to Italian history and literature. (Not given in 1940-41.)

Art. 51 f. Principles of Art Appreciation (2)—Two lectures. Open to upper classmen and by special permission to sophomores.

A course designed to help those who seek the proper approach to figurative art, and the best enjoyment of it. Lectures illustrated with slides showing sample works from the fields of architecture, sculpture, painting, and graphic art. Class discussion of principles. Occasional visits to the museums in Washington.

The increasing art activities in our schools confront teachers with the task of guiding their pupils to an intelligent appreciation of contemporary creations as well as of older works of art. A reasonable amount of time will be given to the pedagogical application of the principles studied in this course.

ASTRONOMY

PROFESSOR T. H. TALIAFERRO.

Astr. 101 y. Astronomy (4)—Two lectures. Elective, but open only to juniors and seniors.

An elementary course in descriptive astronomy. (Taliaferro.)

BACTERIOLOGY*

PROFESSORS JAMES, BLACK; ASSISTANT PROFESSOR FABER; DR. BODILY; MR. NOLTE, MR. SNYDER, MR. MCBEE, MR. HARVEY, MR. LYNT, MR. GOLDSMITH, MR. YOUNG, MR. FLORESTANO.

A. Bacteriology

Bact. 1 f and s. General Bacteriology (4)—Two lectures; two laboratories. Sophomore standing.

A brief history of bacteriology; microscopy; morphology; classification; metabolism; bacterial enzymes; application to water, milk, foods, and soils; relationship to disease and to the industries. Preparation of culture media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; isolation, cultivation, and identification of bacteria; effects of physical and chemical agents. Laboratory fee, $5.00.

Bact. 1 A f and s. General Bacteriology (2)—Two lectures. Sophomore standing.

This course consists of the lectures only of Bact. 1.

Bact. 2 s. Pathogenic Bacteriology (4)—Two lectures; two laboratories. Sophomore year. Prerequisite, Bact. 1. Registration limited.

Principles of infection and immunity; characteristics of pathogenic microorganisms. Isolation and identification of bacteria from pathological material; effects of pathogens and their products. Laboratory fee, $8.00.

*One or more of the scheduled courses for advanced undergraduates and graduates may be given during the evening, if a sufficient number of students register. A special fee is charged.

Bact. 2 A s. Pathogenic Bacteriology (2)—Two lectures. Prerequisite, Bact. 1 and sophomore standing.

This course consists of the lectures only of Bact. 2 s.

Bact. 3 s. Household Bacteriology (3)—One lecture; two laboratories. Junior year. Home Economics students only.

A brief history of bacteriology; bacterial morphology, classification, and metabolism; their relation to water, milk, dairy products, and other foods; infection and immunity; personal, home, and community hygiene. Laboratory fee, $5.00.

Bact. 4 s. Elements of Sanitary Bacteriology (1)—One lecture. Senior year. Engineering students only.

Bacteria and their application to water purification and sewage disposal.

For Advanced Undergraduates and Graduates

Bact. 101 f. Milk Bacteriology (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

The sources and development of bacteria in milk; milk fermentation; sanitary production; care and sterilization of equipment; care and preservation of milk and cream; pasteurization; public health requirements. Standard methods of milk analysis; the bacteriological control of milk supplies and plant sanitation; occasional inspection trips. Laboratory fee, $7.00. (Black.)

Bact. 102 s. Dairy Products Bacteriology (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1. Bact. 101 f desirable.

Relation of bacteria, yeasts, and molds to cream, concentrated milks, fermented milks, starters, butter, ice cream, cheese, and other dairy products; sources of contamination. Microbiological analysis and control; occasional inspection trips. Laboratory fee, $7.00. (Black.)

Bact. 111 f. Food Bacteriology (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteria, yeasts, and molds in foods; relation to preservation and spoilage; sanitary production and handling; food infections and intoxications. Microbiological examination of normal and spoiled foods; factors affecting preservation. Laboratory fee, $7.00. (James.)

Bact. 112 s. Sanitary Bacteriology (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteriological and public health aspects of water supplies and water purification; swimming pool sanitation; sewage disposal; disposal of garbage and refuse; municipal sanitation. Standard methods for examination of water, sewage and other sanitary analyses; differentiation and significance of the coli-aerogenes group. Laboratory fee, $7.00. (Black.)

Bact. 113 f and s. Advanced Methods (2)—One lecture; one laboratory. Junior year. Prerequisite, Bacteriology, 10 hours. Registration limited.

Microscopy, dark field and single cell technic, photomicrography; colorimetric and potentiometric determinations; oxidation-reduction, electrophoresis; surface tension; gas analysis; special culture methods; filtration; advanced study in reagent preparation. Laboratory fee, $7.00. (Bodily.)

Bact. 115 f. Serology (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 2 s. Registration limited.

Infection and resistance; agglutination, precipitation, complement fixation reactions; principles of immunity and hypersensitiveness. Preparation of necessary reagents; general immunologic technic; factors affecting reactions; applications in the identification of bacteria and diagnosis of disease. Laboratory fee, $8.00. (Faber.)

Bact. 116 s. Epidemiology (2)—Two lectures. Junior year. Prerequisite, Bact. 1 and credit or registration in Bact. 2 s or 2 As.

Epidemiology of important infectious diseases, including history, characteristic features, methods of transmission, immunization and control; periodicity; principles of investigation; public health applications. Offered alternate years. (Not offered in 1940-41.) (Faber.)

Bact. 117 s. Public Health (1)—One lecture. Junior or senior year. Prerequisite, Bact. 1 and 2 s.

A series of weekly lectures on public health and its administration, by the staff members of the Maryland State Department of Health, representing each of the bureaus and divisions. Offered alternate years, alternating with Bact. 116 s. (James.)

Bact. 118 s. Systematic Bacteriology (2)—Two lectures. Junior or senior year. Prerequisite, Bacteriology, 10 hours.

History of bacterial classification; genetic relationships; international codes of nomenclature; bacterial variation as it affects classification. Offered alternate years. (Not offered in 1940-41.) (James.)

Bact. 123 f, 124 s. Bacteriological Problems (2, 2)—Two laboratories. Senior year. Prerequisite, Bact. 1 and 2 s and any other courses needed for the projects. Registration limited.

This course is arranged as an introduction to research. Subject matter suitable to the needs of the particular student or problem will be arranged. The problems are to be selected, outlined, and investigated in consultation with and under the supervision of a member of the department. Results are to be presented in the form of a thesis. No graduate credit for students majoring in Bacteriology. Laboratory fee, $7.00. (Staff.)

Bact. 125 f. Clinical Methods (2)—Two laboratories. Prerequisite, Bact. 2 s, or consent of instructor.

Methods for microscopic examination of blood; bacteriological examination of sputum, feces and spinal fluids; microscopic and routine chemical methods for examination of urine. Laboratory fee, $5.00. (Faber.)

Bact. 131 f, 132 s. Journal Club (1, 1)—Senior year. Prerequisites, Bact. 1 and 2 s.

Students will submit reports on current scientific literature or on individual problems in bacteriology, which will be discussed and criticised by members of the class and staff. No graduate credit for students majoring in Bacteriology. (Black.)

For Graduates

Bact. 205 f. Research Methods (1)—One lecture. Prerequisite, Bacteriology, 6 hours.

Methods of research; library practice; current literature; preparation of papers; research institutions, investigators; laboratory design, equipment and supplies; academic practices; professional aids. (Black.)

Bact. 207 f, 208 s. Special Topics (1, 1)—Prerequisite, Bacteriology, 10 hours.

Presentation and discussion of fundamental problems and special subjects. (Black.)

Bact. 211 f. Bacterial Metabolism (2)—Two lectures. Prerequisite, Bact. 1, Chem. 12 y or equivalent.

Growth, nutrition, physiological inter-relationships; bacterial enzymes; respiration; fermentations; chemical activities of micro-organisms; industrial fermentations. (Black.)

Bact. 221. Research (2-12)—Laboratory. Credit will be determined by the amount and character of the work accomplished. Prerequisite, Bact. 1 and 2 s, and any other courses needed for the particular projects.

Properly qualified students will be admitted upon approval of the department head and with his approval the student may select the subject for research. The investigation is outlined in consultation with and pursued under supervision of a faculty member of the department. Laboratory fee, $3.00 per credit hour. (Staff.)

Bact. 231 f, 232 s. Seminar (2, 2)—Prerequisite, Bacteriology, 10 hours.

Discussions and reports prepared by the student on current research, selected subjects, and recent advances in bacteriology. (James.)

B. Food Technology*

F. Tech. 1 s. Introduction to Food Technology (1)—One lecture.

Discussions of the general phases of study comprising food technology.

For Graduates and Advanced Undergraduates

F. Tech. 100 f. Food Microscopy (2)—Two laboratories.

Microscopical analysis of foods following the methods used in the Federal Government and other agencies. Studies of the structural composition of agricultural and manufactured foods. Use of microscopic tests in factory control and analyses. Laboratory fee, $7.00. (James.)

*One or more of the scheduled courses for advanced undergraduates and graduates may be given during the evening, if a sufficient number of students register. For further information, address The Department of Bacteriology. A special fee is charged.

F. Tech. 108 s. Preservation of Poultry Products (2)—Two laboratories. Junior or senior year. Prerequisite, Bact. 1.

Studies of the microbiology of poultry, alive and during storage; microbiology of shell eggs fresh and during storage; microbiology of frozen and dried eggs. This is taught in cooperation with department of poultry husbandry. Laboratory fee, $7.00. (James, Gwin.)

F. Tech. 110 f. Regulatory Control (1)—One lecture and demonstration.

Methods followed in the control of foods in interstate and intrastate commerce. Consideration of laboratory basis of standards of control. (James.)

F. Tech. 120 s. Food Sanitation (2)—Lecture, laboratory, and field work. Prerequisite, Bact. 1 and 111 f or their equivalent. Enrollment limited, with preference given to students majoring in this field.

Principles of sanitation in food manufacture and distribution; methods of control of sanitation in commercial canning, pickling, bottling, preserving, refrigeration, dehydration, etc. Laboratory fee, $7.00. (James.)

F. Tech. 130 y. Technology Conference (2)—One lecture. Senior standing.

Reports and discussions of current developments in the field of food technology. (James.)

BOTANY

PROFESSORS APPLEMAN, NORTON, TEMPLE, BAMFORD; ASSISTANT PROFESSORS BROWN, DUBUY, WOODS, SHIRK; MR. BELLOWS, MR. JONES, MR. HANEY, MR. PIERCE.

A. General Botany and Morphology

Bot. 1 f. General Botany (4)—Two lectures; two laboratories.

General introduction to botany, touching briefly on all phases of the subject. The chief aim in this course is to present fundamental biological principles rather than to lay the foundation for professional botany. The student is also acquainted with the true nature and aim of botanical science, its methods, and the value of its results. Laboratory fee, $5.00.

Bot. 2 s. Introductory Botany (3)—Two lectures; one demonstration or laboratory period.

A course similar to Bot. 1 f, except that only one demonstration or laboratory period is required. Laboratory fee, $3.00.

Bot. 3 s. General Botany (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A continuation of Bot. 1 f, but with emphasis upon the evolutionary development of the plant kingdom and the morphological changes correlated with it. A study of algae, fungi, liverworts, mosses, ferns, and their relatives, and the seed plants. Several field trips will be arranged. Laboratory fee, $3.00.

Bot. 4 s. Local Flora (2)—Two laboratories.

A study of common plants, both wild and cultivated, and the use of keys, floral manuals, and other methods of identifying them. Largely field work.

For Advanced Undergraduates and Graduates

Bot. 101 f. Plant Anatomy (3)—One lecture; two laboratories. Prerequisite, Bot. 1 f.

The origin and development of the organs and tissue systems in the vascular plants, with special emphasis on the structures of roots, stems, and leaves. Reports of current literature are required. Laboratory fee, $3.00. (Bamford.)

Bot. 103 f. Plant Taxonomy (3)—One lecture; two laboratories. Prerequisite, Bot. 1 f.

Classification of the vegetable kingdom, and the principles underlying it; the use of other sciences and all phases of botany as taxonomic foundations; methods of taxonomic research in field, garden, herbarium, and library. Each student to work on a special problem during some of the laboratory time. (Norton.)

Bot. 104 s. Advanced Plant Taxonomy (3)—One lecture; two laboratories. Prerequisite, Bot. 103 f.

Principles and criteria of plant taxonomy. Reviews and criticisms of current taxonomic literature. Each student works on an original problem during the laboratory time. (Not given in 1940-41.) (Norton.)

Bot. 105 s. Economic Plants (2)—Two lectures.

The names, taxonomic position, native and commercial geographic distribution, and use of the leading economic plants of the world are studied. A collection of plant products from markets, stores, factories, etc., is made by students to illustrate the useful plants both in the natural form and as used by man. (Norton.)

Bot. 106 f. History and Philosophy of Botany (1)—One lecture.

Discussion of the development of ideas and knowledge about plants, also a survey of contemporary work in botanical science. (Norton.)

Bot. 107 s. Methods in Plant Histology (2)—Two laboratories. Prerequisite, Bot. 1 f.

Principles and methods involved in the preparation of permanent slides. Laboratory fee, $3.00. (Brown.)

Bot. 108 y. Undergraduate Seminar (2).

Discussion of current literature, problems, and progress in Botany. For undergraduate majors and minors; no graduate credit given. (Brown.)

For Graduates

Bot. 201 s. Cytology (4)—Two lectures; two laboratories. Prerequisites, Bot. 1 f, Gen. 101 f, or equivalent.

A detailed study of the cell during its metabolic and reproductive stages. The major portion is devoted to chromosomes in mitosis and meiosis, and the relation of these stages to current theories of heredity and evolution. The laboratory involves the preparation, examination, and illustration of cytological material by current methods. Laboratory fee, $3.00. (Bamford.)

Bot. 202 s. Plant Morphology (2)—Two lectures and demonstrations. Prerequisites, Bot. 1 f, 3 s, and 101 f.

A comparative study of the morphology of the flowering plants, with special reference to their phylogeny and development. Laboratory fee, $3.00. (Bamford.)

Bot. 203 f and s. Seminar (1).

The study of special topics in plant morphology, anatomy, and cytology. (Bamford.)

Bot. 204. Research.—Credit according to work done. (Norton, Bamford.)

Note: See announcement on page 379 for further botany courses given at the Chesapeake Biological Laboratory.

B. Plant Pathology and Mycology

Plt. Path. 1 f. Diseases of Plants (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

An introductory study in the field, in the laboratory, and in the literature, of symptoms, causal agents, and control measures of the diseases of plants. The work is so arranged that a student may devote part of his time to the important diseases of the plants in which he is particularly interested. Laboratory fee, $3.00.

For Advanced Undergraduates and Graduates

Plt. Path. 101 f. Diseases of Fruits (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

An intensive study intended to give a rather thorough knowledge of the subject matter, such as is needed by those who expect to become advisers in fruit production, as well as those who expect to become specialists in plant pathology. Laboratory fee, $3.00. (Not given in 1940-1941.) (Temple.)

Plt. Path. 102 s. Diseases of Garden and Field Crops (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

The diseases of garden crops, truck crops, cereal and forage crops. Intended for students of vegetable culture, agronomy, and plant pathology, and for those preparing for county agent work. Laboratory fee, $3.00. (Temple.)

Plt. Path. 103 f, 104 s. Research Methods (2-3, 2-3)—One conference and five or seven hours of laboratory work. Prerequisite, Plt. Path. 1 f, or equivalent.

Certain technics of plant disease investigations including procedures in sterilization; cultural methods; isolation of pathogens; microscopy and photography. In some instances the student may undertake an investigation of special phases of a research problem. Laboratory fee, $3.00. (Woods.)

Plt. Path. 105 s. Diseases of Ornamentals (2)—Two lectures. Prerequisite, Plt. Path. 1 f.

The most important diseases of plants grown in greenhouse, flower garden, and landscape, including shrubs and shade trees. (Temple.)

Plt. Path. 106 y. Seminar (2).

Conferences and reports on plant pathological literature and on recent investigations. (Temple, Norton, Woods.)

Plt. Path. 107 f. Plant Disease Control (3)—Two lectures; one laboratory. Prerequisite, Plt. Path. 1 f.

An advanced course dealing with the theory and practice of plant disease control; the preparation of sprays and other fungicides and the testing of their toxicity in greenhouse and laboratory; demonstration and other extension methods adapted to county agent work and to the teaching of agriculture in high schools. (Temple.)

Plt. Path. 108 f. Mycology (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

An introductory study of the morphology, life histories, classification, and economics of the fungi. Laboratory fee, $3.00. (Norton, Woods.)

For Graduates

Plt. Path. 201 s. Virus Diseases (2)—Two lectures.

An advanced course, including a study of the current literature on the subject and the working of a problem in the greenhouse. (Woods.)

Plt. Path. 203 f. Non-Parasitic Diseases (3)—Two lectures; one laboratory.

Effects of maladjustment of plants to their environment; injuries due to climate, soil, gases, dusts and sprays, fertilizer, improper treatment and other detrimental conditions. (Not given in 1940-41.) (Norton.)

Plt. Path. 205. Research.—Credit according to work done. (Norton, Temple, Woods.)

C. Plant Physiology

For Advanced Undergraduates and Graduates

Plt. Phys. 101 f. Plant Physiology (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A summary view of the general physiological activities of plants. The aim in this course is to stress principles rather than factual details. Laboratory fee, $3.00. (Brown.)

Plt. Phys. 102 s. Plant Ecology (3)—Two lectures; one field trip. Prerequisite, Bot. 1 f.

The study of plants in relation to their environments. Plant formations and successions in various parts of the country are briefly treated. Much

of the work, especially the practical, must be carried on in the field, and for this purpose type regions adjacent to the University are selected. Students pay cost of field trips. (Brown.)

For Graduates

Plt. Phys. 201 s. Plant Biochemistry (4)—Two lectures; two laboratories. Prerequisite, an elementary knowledge of plant physiology and organic chemistry.

An advanced course in plant physiology, in which the chemical aspects are especially emphasized. It deals with the important substances in the composition of the plant body and with the important processes in plant life. Laboratory fee, $3.00. (Appleman, Shirk.)

Plt. Phys. 202 A f. Plant Biophysics (2)—Two lectures. Prerequisites, Bot. 1 f and Plt. Phys. 101 f or equivalent.

An advanced course dealing with the operation of physical forces in plant life processes. Students electing this course should elect Plt. Phys. 202 Bf. (Not given in 1940-1941.) (Appleman, Shirk, Brown.)

Plt. Phys. 202 Bf. Biophysical Methods (2)—Two laboratories. Laboratory fee, $3. (Not given in 1940-1941.) (Shirk.)

Plt. Phys. 203 s. Plant Microchemistry (2)—One lecture; one laboratory. Prerequisites, Bot. 1 f, Chem. 1 y, or equivalents.

The isolation, identification, and localization of organic and inorganic substances found in plant tissues by micro-technical methods. The use of these methods in the study of metabolism in plants is emphasized. Laboratory fee, $3.00. (Brown.)

Plt. Phys. 204 f. Growth and Development (2). (Appleman, Brown, duBuy.)

Plt. Phys. 205 f or s. Seminar (1).

Students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject. (Appleman.)

Plt. Phys. 206. Research.—Credit according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Staff.)

BUSINESS ADMINISTRATION‡

PROFESSORS STEVENS, WEDEBERG, GRUCHY; LECTURER RIGGLEMAN; ASSOCIATE PROFESSORS MARSHALL, BENNETT, WYCKOFF; ASSISTANT PROFESSORS DANIELS,* GAY, CISSEL, FISHER, KIRKPATRICK; MR. REID, MR. MULLIN, MR. SHIRLEY, MR. BENTON.

Some of the specialized courses in the following lists may be offered only in alternate years, whenever prospective enrollments therein do not justify repeating annually. Such courses are indicated by an asterisk.

‡See also related courses in Economics, in Agricultural Economics, especially A. E. 1 f, 2 s, 102 s, 104 s, 106 s, 109 y, 210 s, 211 f, 212 f, 213 s, 214 s, and 215 s; and in Psychology, especially Psych. 4 f, 141 s, and 160 f.

*On leave.

A. Accounting

Acct. 51 y. Principles of Accounting (8)—Three lectures; one laboratory.

This course has two aims, namely, to give the prospective business man an idea of accounting as a means of control, and to serve as a basic course for advanced and specialized accounting. A study is made of methods and procedures of accounting in the sole proprietorship, partnership, and corporation.

For Advanced Undergraduates and Graduates

Acct. 101 f, 102 s. Advanced Accounting (3, 3)—Three lectures. Prerequisite, Acct. 51 y.

Advanced theory and problems in connection with the following: working papers, statements; corporations; actuarial science; cash; accounts receivable; notes and acceptances; inventories, consignments; installment sales; tangible fixed assets; intangible assets; investments; liabilities; funds and reserves; correction of statements and books; comparative statements; the analysis of working capital; miscellaneous ratios; profit and loss analysis; and statement of application of funds. (Cissel.)

Acct. 121 f. Cost Accounting (2)—Two lectures. Prerequisite, Acct. 51 y.

The need and value of cost accounting; cost systems and cost classifications; classification of accounts; subsidiary ledgers and cost records; outline of specific order cost accounting; accounting for material; material storage and consumption; valuation of materials; accounting for labor costs; special features of accounting for labor cost; accounting for manufacturing expense; distribution of service department costs; distribution of manufacturing expense to production; control of distribution cost; monthly closing entries. Theory, problems, and practice set. (Cissel.)

Acct. 122 s. Advanced Cost Accounting (2)—Two lectures. Prerequisite, Acct. 121 f.

Preparation of analytical statements; comparative statements; process cost accounting; standard costs; analysis of variances; accounting for standard costs; estimating cost systems; special considerations; arguments for and against including interest on investments; graphic charts; uniform methods. A discussion of advanced theory and problems. (Cissel.)

Acct. 149. Apprenticeship in Public Accounting. (0)—Open only to seniors in the upper ten per cent of the class. Prerequisite, Acct. 171 f, 172 s, (credit or concurrent registration).

A one month's apprenticeship with nationally known firms from about January 15 to February 15.

Acct. 161 f. Income Tax Procedure (3)—Three lectures. Prerequisite, Acct. 102 s.

Income tax in theory and practice. Selected cases and problems illustrating the definition of taxable income of individuals, corporations, and estates. (Wedeberg.)

Acct. 171 f, 172 s. Auditing Theory and Practice (2, 2)—One lecture; one laboratory. Prerequisite, Acct. 102 s.

Principles of auditing, including a study of different kinds of audits, the preparation of reports, and illustrative cases or problems. (Cissel.)

Acct. 181 f, 182 s. Specialized Accounting (3, 3)—Three lectures. Prerequisite, Acct. 102 s.

Accounting for partnerships; ventures; insurance; receiverships; branches; consolidations; mergers; foreign exchange; estates and trusts; budgets; public accounts; savings banks; commercial banks; national banks; building and loan associations; stock brokerage; consignments; department stores; real estate; extractive industries; hotels; government; electric utilities; and others. (Wedeberg.)

Acct. 186 s. C. P. A. Problems (3)—Three lectures. Prerequisite, consent of the instructor.

This course is arranged to coordinate all previous work in accounting with special emphasis on the solution of practical C. P. A. problems and the discussion of C. P. A. theory. (Wedeberg.)

For Graduates

Acct. 228 f, 229 s. Accounting Systems (3, 3)—Prerequisite, Acct. 181 f, 182 s. Students who do not have these prerequisites must attend all classes in Acct. 181 f, 182 s concurrently.

A discussion of the more difficult problems in connection with the industries covered in Acct. 181 f, 182 s. Also includes the statement of affairs; realization and liquidation account; parent and subsidiary accounting; and financing. (Wedeberg.)

Acct. 299 f. Special Problems in Accounting (3)—Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Investigations of specific problems, as directed by individual conferences with the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Wedeberg.)

B. Finance‡

Fin. 53 s. Money and Banking (3)—Prerequisite, Econ. 51 y.

An analysis of the basic principles of money and credit; the history of money; the operations of the commercial banking system.

For Advanced Undergraduates and Graduates

Fin. 105 f.* Consumer Financing (3)—Prerequisites, Econ. 51 y or 57 and Fin. 53 s.

The economics of installment selling; methods of financing the consumer; and operations of the personal finance company. (Gruchy.)

Fin. 106 f. Public Finance (3)—Prerequisite, Econ. 51 y or 57.

The nature of public expenditures, sources of revenue, taxation, and budgeting. Special emphasis on the practical, social, and economic problems involved. (Gruchy.)

Fin. 111 f. Corporation Finance (3)—Prerequisites, Econ. 51 y or 57 and Acct. 51 y.

The organization and financing of a business enterprise. Types of securities and their utilization in apportioning income, risk, and control. Problems of capitalization, refunding, reorganization, and expansion. Procurement of capital. Public regulation of the sale of securities. (Stevens, Mullin.)

Fin. 115 f. Investments (3)—Prerequisite, Fin. 111 f.

Sources of information for the investor. Classes of investments, government bonds, municipals, real estate mortgages, public utilities, railroads, industrial securities, movement of security prices, analysis of financial statements, adapting the investment policy to the purpose and needs of the investor. (Stevens, Mullin.)

Fin. 116 s.* Investment Banking (3)—Prerequisite, Econ. 51 y.

A study of the functions and operations of investment banking institutions and their relation to the market for long-term credit, and with emphasis on the trends and problems of investment banking. (Not offered in 1940-41.) (Gruchy.)

Fin. 118 f.* Stock and Commodity Exchanges (3)—Prerequisite, Econ. 51 y or 57.

An analysis of the operations of the various exchanges. Brokerage houses and methods of trading. Regulation of the exchanges. (Gruchy.)

Fin. 121 s.* Advanced Banking Principles and Practices (3)—Prerequisite, Econ. 51 y or 57, and Fin. 53 s.

The incorporation, organization, and operation of banks. Functions of departments and problems of customer relations. Bank legislation and governmental regulation. (Gruchy.)

‡See also related courses in Agricultural Economics, especially A. E. 104 s, 210 s, and 211 f.

Fin. 125 f.* Credits and Collections (3)—Prerequisite, Acct. 51 y.

Nature and function of credit and use of credit instruments. Principles of credit investigation and analysis. The work of the credit manager. (Bennett.)

Fin. 129 s.* International Finance (3)—Prerequisite, Econ. 51 y or 57.

Foreign exchange theory and practice. International aspects of monetary and banking problems. International money markets. The gold problem and the Bank for International Settlements. (Gay.)

Fin. 141 f. Insurance (3)—Prerequisite, Econ. 51 y.

A survey of the major principles and practices of life and property insurance, with special reference to their relationship to our social and economic life. (Fisher.)

Fin. 149 f, s, or S. Supervised Practice in Finance (2)—Prerequisite, credit or concurrent registration in Finance 51 y and any specialized finance courses needed for proper understanding of a particular business, such as Finance 105, 106, 111, 115, 116, 118, 125, 129, 141 or 151. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

This practice in actual work in an approved financial institution under guidance may be arranged for any period of the year. The method of individual conferences, reports, and supervised collateral reading. (Gruchy.)

Fin. 151 s.* Real Estate (3)—Prerequisite, Econ. 51 y or 57.

The principles and practices involved in owning, operating, merchandising, leasing, and appraising real estate and real estate investments. (Bennett.)

Fin. 199 s. Financial Analysis and Control (3)—Prerequisite, senior standing or consent of instructor, and Finance 111 f.

Internal administration of a business from the viewpoint of the chief executive. Departmentalization and functionalization, anticipation and budgetary control of sales, purchases, production, inventory, expenses, and assets. The coordination of financial administration. Policy determination, analysis, and testing. (Stevens, Fisher.)

For Graduates

Fin. 229 f or s. Special Problems in Finance (1-3)—Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Stevens, Gruchy.)

C. Marketing‡

For Advanced Undergraduates and Graduates

Mkt. 101 f. Principles of Marketing (3)—Prerequisite, Econ. 51 y or 57.

A study of the fundamental principles of assembling and dispersing manufactured goods; functions of wholesale and retail middlemen; branch house distribution; mail order and chain store distribution; price and price policies; cash and quality discounts; price maintenance; and a discussion of the problem of distribution costs. (Bennett.)

Mkt. 105 s. Salesmanship and Salesmanagement (3)—Prerequisite, Econ. 51 y or 57, and Mkt. 101 f or consent of the instructor.

An analysis of the fundamental principles of salesmanship and the technique of personal presentation of ideas, goods, and services. Analysis of customer buying motives, habits, and sales reactions. The structure and function of the sales organization and its relation to the activities of the production and other departments. Building, training, equipping, stimulating, and supervising a sales force. (Reid.)

Mkt. 109 f. Principles of Advertising (3)—Prerequisite, Econ. 51 y or 57.

Functions and economic implications of advertising; selection and adaptation of media to various lines of business. Layouts, copy writing, and campaign planning. Objectives, appropriations, and measurements of effectiveness. (Mullin.)

Mkt. 115 s.* Purchasing Technique (3)—Prerequisite, Econ. 51 y or 57.

Ascertaining sources of supply; substitutes; utilization of catalogues, files, pooled information, and cooperative purchasing; buying on specifications, sampling, testing, bargaining, terms, discounts, relations with salesmen. Procurement, analysis, and interpretation of market and price data. Materials control. Interdepartmental and office organization. (Kirkpatrick.)

Mkt. 119 s.* Retail Store Management and Merchandising (3)—Prerequisite, Mkt. 101 f.

Retail store organization, location, and store policy; pricing policies, price lines, brands, credit policies; records as a guide to buying; budgetary control of inventory and expenses; purchasing methods; supervision of selling; training and supervision of retail sales force; administrative problems. (Kirkpatrick).

Mkt. 149 f, s, or S. Supervised Practice in Marketing (2)—Prerequisite, credit or concurrent registration in Mkt. 101, and any specialized marketing course needed for proper understanding of a particular business, such as Mkt. 105, 109, 115, or 119. Consent of the instructor is necessary; this will not be given unless the position assigned for a given registrant in a commercial business is of such a nature that effective experience can be obtained. This internship may be arranged for any period of the year.

Practice in actual marketing work under guidance. The method of individual conferences, reports, and supervised collateral reading. (Stevens, Reid, Mullin.)

Mkt. 199 s. Marketing Research and Market Policies (3)—Prerequisite, nine credit hours in marketing.

A study of the methods and problems involved in marketing research. (Stevens, Bennett.)

For Graduates

Mkt. 229 f or s. Problems in Marketing (1-3)—Prerequisites, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Marketing Staff.)

D. Trade and Transportation‡

T. and T. 1 f. Economic Geography (3)—For freshmen. Sophomores admitted with consent of instructor.

A study of economic and physical factors which are responsible for the location of industries and which influence the production, distribution, and exchange of goods throughout the world. This course deals primarily with regional geography; that is, the industrial development and commerce of the separate regions and countries with especial reference to the U. S.

T. and T. 4 s. Development of Commerce and Industry (3)—For freshmen. Sophomores admitted with consent of instructor.

Ancient and medieval economic organization. The guild, domestic, and mercantile systems. The industrial revolution, laissez-faire, modern industrial and commercial organizations in Europe and America. Post-war restrictions on commerce.

For Advanced Undergraduates and Graduates

T. and T. 101 f. Principles of Foreign Trade (3)—Prerequisites, Econ. 51 y, T. and T. 1 f, 4 s, or consent of instructor.

A study of the basic principles and practices of foreign trade, its development and significance in relation to domestic commerce and national development. Modern commercial policies, the tariff controversy, and the growth of economic nationalism. (Gay.)

‡See also related courses in Agricultural Economics, especially A. E. 102 s, 103 f, 105 s, 106 s, and 215 s; and in Psychology, especially Psych. 4 f, 140 f, and 141 s.

‡See also related courses in Agricultural Economics, especially A. E. 1 f, 212 f, and 213 s.

T. and T. 111 f. Principles of Transportation (3)—Prerequisite, Econ. 51 y or 57.

A study of the development of transportation facilities in the United States, and the regulatory measures that have accompanied this development. The principles of railway rates and tariffs and their effects on agricultural and business organization. Changing transportation methods; the modern "railroad problem." (Gay.)

T. and T. 121 s.* Export and Import Trade Procedure (3)—Prerequisite, T. and T. 101 f.

Functions of various exporting agencies; documents and procedures used in exporting and importing transactions. Methods of procuring goods in foreign countries; financing of import shipments; clearing through the customs districts; and distribution of goods in the United States. Field trips are arranged to study actual import and export procedure. A nominal fee is collected before each trip to cover expenses incurred. (Gay.)

T. and T. 148 f, s, or S. Supervised Practice in Transportation (2)—Prerequisites, credit or concurrent registration in T. and T. 111 f, and any other specialized course needed for proper understanding of a particular type of transportation enterprise. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

This practical work under guidance in an approved transportation agency may be arranged for any period during the year. The method of individual conferences, reports, and supervised collateral reading. (Gay.)

T. and T. 149 f, s, or S. Supervised Practice in Foreign Trade (2)—Prerequisites, credit or concurrent registration in T. and T. 101 f and any other specialized course needed for proper understanding of a particular business, such as T. and T. 111 f, and 121 s. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

This practical work under guidance in an approved exporting or importing house, may be arranged for any period during the year. The method of individual conferences, reports, and supervised collateral reading. (Gay.)

For Graduates

T. and T. 229 s. Problems in Foreign Trade (1-3)—Prerequisites, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Gay.)

E. Organization and Management‡

O. and M. 51 f. Elements of Business (2)—Prerequisite, junior standing and consent of the instructor.

A rapid survey of the elements of business and of the management of personal finances for students of home economics and other curricula not primarily concerned with business administration. Majors in General or Applied Economics will be admitted to the course only in case there are vacancies after providing for other students, and they will be required to do additional work.

For Advanced Undergraduates and Graduates

O. and M. 101 s, 102 f. Business Law (3, 3)—Prerequisite, junior standing. Section A is limited to majors in Accounting, or those who have consent of the instructor.

Legal aspects of business relationships, contracts, negotiable instruments, agency, partnerships, corporations, real and personal property, and sales. Section A is a more intensive treatment of the law of contracts, sales, negotiable instruments, agency and partnerships than is given in Section B, and is designed to prepare students for the accounting profession in Maryland. (Fisher, Shirley.)

O. and M. 103 s. Advanced Business Law (2)—Prerequisite, O. and M. 101 s, 102 f.

The principles of the law of corporations, trusts, and the administration of the estates of bankrupts and decedents, presented in a manner calculated to prepare students for the accounting profession in Maryland. (Shirley.)

O. and M. 110 f. Fundamentals of Business Administration (2)—Prerequisite, open only to senior Engineers.

An analysis of the business structure, showing the functions of production, marketing, and finance, and the use of the tools of accounting and statistics. Designed to show the engineer his relationship as a functional expert to other functional experts and to give an academic opportunity to apply technical knowledge in business problems. (Reid.)

O. and M. 121 s. Industrial Management (3)—Prerequisites, Econ. 51 y or 57, Fin. 111 f, Mkt. 101 f, or consent of the instructor.

The course is based upon analysis of actual business cases concerned with various aspects of managements' problem of production, including particularly the following: specialization of plant, equipment, and labor; simplification, standardization; diversification; expansion; contraction; integration; raw materials supply; purchasing; plant location; plant layout; labor supply; job standards and wage payment; personnel relations; planning and scheduling; organization and control. (Mullin.)

‡See also related courses in Psychology, especially Psych. 3 s, 160 f, and 161 s.

O. and M. 25 s.—Psych. 161 s. Personnel (3)—Prerequisites, Econ. 51 y or 57 and Psych. 3 s or 4 f, or permission of instructor.

A study of the problems involved in the organization and management of personnel in modern business and industry. A consideration of employee selection, measures of ability, methods of developing and maintaining personnel efficiency. Supplementary reading material for Commerce students will conform to the individual's particular interests and will be under the direction of Dr. Wyckoff and Dr. Marshall. See also related course, Econ. 133 f, Industrial Relations.

(Clark.)

O. and M. 149 f, s, or S. Supervised Practice in Cooperation (2)—Prerequisites, credit or concurrent registration in Econ. 161 s and any specialized courses needed for proper understanding of a particular cooperative enterprise. Consent of the instructor is necessary; this will not be given unless the position aranged for a given registrant is of such a nature that effective experience can be obtained.

This practical work under guidance in an approved cooperative organization may be arranged for any period during the year. The method of individual conferences, reports, and supervised collateral reading.

(Stevens.)

O. and M. 161 s.* Problems in Cooperative Administration (3)—Prerequisites, six semester hours in accounting, three in finance, eight in economics, three in statistics, three in organization and management, and three in cooperative theory. Graduate students will be required to do additional work.

A seminar course in the practical problems of cooperative management that is intended to integrate previous managerial courses. A limited amount of travel is required, for which a nominal fee is collected at the time of each field trip to cover the expenses incurred.

(Stevens.)

For Graduates

O. and M. 201. Research (2-6)—Credit in proportion to work accomplished. Student must be especially qualified by previous work to pursue effectively the research to be undertaken.

Investigation or original research in problems of business organization and operation under supervision of the instructor. (Commerce Staff.)

O. and M. 208 s. Legal Aspects of Business Problems (2)—Prerequisites, six semester hours in commercial law, twelve in accounting, nine in economics, and six in political science.

Law as an institution conditioning economic behavior. The law applicable to problems in management and production, marketing, and finance.

(Shirley.)

O. and M. 291 f or s. Problems in Business Organization (1-3)—Prerequisites, preliminary courses in the field of specialization, six semester

hours in organization and management, eight in accounting, nine in economics, and three in statistics.

Individual investigation of specific problems, under direction of the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Business Administration Staff.)

CHEMISTRY

PROFESSORS BROUGHTON, DRAKE, HARING, WHITE; ASSOCIATE PROFESSOR WILEY; ASSISTANT PROFESSOR SUPPLEE; DR. LAMB, DR. MOZINGO, DR. SVIRBELY, MR. WESTGATE, MR. AARONS, MR. ANSPON, MR. BEAMER, MR. BRUCE, MR. CHAPMAN, MR. LANDER, MR. LANN, MR. LEED, MR. LINNIG, MR. LONGLEY, MR. PETERSON, MR. SWEENEY, MR. TOLLEFSON, MR. WHARTON, MR. WHITON, MR. WINGATE, MR. WOODROW, MR. YOUNG.

A. Inorganic Chemistry

Chem. 1 A y. General Chemistry (8)—Two lectures; two laboratories.

A study of the non-metals and metals. One of the main purposes of the course is to develop original work, clear thinking, and keen observation.

Course A is intended for students who have not had high school chemistry, or have passed their high school chemistry with a grade lower than B. Laboratory fee, $7.00 per semester.

Chem. 1 B y. General Chemistry (8)—Two lectures; two laboratories.

This course covers the same ground as Chem. 1 A y; but the subject matter is taken up in more detail, with emphasis on chemical theory and important generalization. The laboratory work deals with fundamental principles, the preparation and purification of compounds, and a systematic qualitative analysis of the more common metals and acid radicals.

Course B is intended for students who have passed an approved high school chemistry course with a grade not lower than B. Laboratory fee, $7.00 per semester.

Chem. 2 y. Qualitative Analysis (6)—Two lectures; one laboratory the first semester: and one lecture; two laboratories the second semester. Prerequisite, Chem. 1 y.

A study of the reactions of the common metals and the acid radicals, their separation and identification, and the general underlying principles. Laboratory fee, $7.00 per semester.

Chem. 3 y. Introductory Chemistry (6)—Two lectures; one demonstration.

The subject matter is essentially the same as that of Chem. 1 A y. This course is designed for students desiring a working knowledge of elementary chemistry, without the laboratory part. It is not accepted as a prerequisite for advanced chemistry courses. Laboratory fee, $3.00 per semester.

For Advanced Undergraduates and Graduates

Chem. 130 y. Chemical Microscopy (4)—One lecture; one laboratory. Prerequisite, special permission of instructor.

A course designed to acquaint the student with the fundamentals of microscopic analysis. Latter part of the course devoted to a study of textile fibers. Laboratory fee, $7.00 per semester. (Svirbely.)

For Graduates

Chem. 200 A y. Chemistry of the Rarer Elements (4)—Two lectures. Prerequisite, Chem. 2 y.

A course devoted to the study of the elements not usually considered in the elementary course. (White.)

Chem. 200 B y. Advanced Inorganic Laboratory (4)—Two laboratories. Prerequisite, consent of instructor.

A laboratory study of the compounds of elements considered in Chem. 200 A y. Laboratory fee, $7.00 per semester. (White.)

Chem. 201 f or s. An Introduction to Spectographic Analysis (1).

A laboratory course designed to acquaint the student with the fundamentals of spectographic analysis. Laboratory fee, $7.00. (White.)

Chem. 202 y. Theory of Solutions (4)—Two lectures. Prerequisite, Chem. 102 A y.

A systematic study of the theories and properties of solutions. Subjects considered are solubility, regular solutions, dipole moments, solution kinetics, and modern theories of dilute and concentrated electrolytes. (Not offered in 1940-41.) (Svirbely.)

Chem. 240 f. Chemical Microscopy (2)—One lecture; one laboratory.

A more extensive course than Chem. 130 y designed to acquaint the student with the fundamentals of microscopic analysis. Laboratory fee, $7.00. (Svirbely.)

Chem. 241 s. Chemical Microscopy (2)—One lecture; one laboratory. Prerequisite, Chem. 240 f.

A course devoted to the study of the optical properties of crystals. Laboratory fee, $7.00. (Svirbely.)

B. Analytical Chemistry

Chem. 4 f or s. Quantitative Analysis (4)—Two lectures; two laboratories. Prerequisite, Chem. 1 y.

Quantitative analysis for premedical students, with special reference to volumetric methods. Laboratory fee, $7.00 per semester.

Chem. 6 y. Quantitative Analysis (8)—Two lectures; two laboratories. Prerequisite, Chem. 2 y.

The principal operations of gravimetric analysis. Standardization of weights and apparatus used in chemical analysis. The principal operations of volumetric analysis, a study of indicators, typical volumetric and colorimetric methods. The calculations of volumetric and gravimetric analysis are emphasized. Required of all students whose major is chemistry. Laboratory fee, $7.00 per semester.

For Advanced Undergraduates and Graduates

Chem. 101 y. Advanced Quantitative Analysis (8)—Two lectures; two laboratories. Prerequisite, Chem. 6 y, or its equivalent.

A broad survey of the field of inorganic quantitative analysis. The first semester is devoted to mineral analysis, including the analysis of silicates and carbonates. The second semester is devoted to a study of the analysis of iron, steel, and such other materials as best fit the needs of the individual student. Laboratory fee, $7.00 per semester. (Svirbely.)

For Graduates

Chem. 243 y. Special Problems in Quantitative Analysis (4)—Two laboratories. Prerequisite, Chem. 6 y. Laboratory work and conferences.

A complete treatment of some special problem or problems, chosen to meet the needs and interest of the individual student. Laboratory fee, $7.00 per semester. (Svirbely.)

C. Organic Chemistry

Chem. 8 A y. Elementary Organic Chemistry (4)—Two lectures. Prerequisite, Chem. 1 y.

This course includes an elementary study of the fundamentals of organic chemistry, and is designed to meet the needs of students specializing in chemistry, and of premedical students.

Chem. 8 B y. Elementary Organic Laboratory (4)—Two laboratories.

A course designed to familiarize the students with the fundamental methods of the organic laboratory. This course, with Chem. 8 A y, satisfies the premedical requirements in organic chemistry. Laboratory fee, $8.00 per semester.

For Advanced Undergraduates and Graduates

Chem. 116 y. Advanced Organic Chemistry (4)—Two lectures. Prerequisite, Chem. 8 A y and 8 B y, or their equivalent.

A course devoted to a more advanced study of the compounds of carbon than is undertaken in Chem. 8 A y. Graduate students who desire an accompanying laboratory course should elect Chem. 210 y. (Drake.)

Chem. 117 y. Organic Laboratory (2)—One laboratory.

A course devoted to an elementary study of organic qualitative analysis. The work includes the identification of unknown organic compounds, and

corresponds to the more extended course, Chem. 207. Laboratory fee, $8.00 per semester. (Mozingo.)

Chem. 118 y. Advanced Organic Laboratory (2)—One laboratory.

A study of organic quantitative analysis and the preparation of organic compounds. Quantitative determinations of carbon and hydrogen, nitrogen, and halogen are carried out, and representative synthesis, more difficult than those of Chem. 8 B y are studied. Laboratory fee, $8.00 per semester. (Mozingo.)

For Graduates

Chem. 203 A f. Stereochemistry (2)—Two lectures.

A comprehensive study of stereoisomerism. (Not offered in 1940-41.) (Drake.)

Chem. 203 B f. The Polyene Pigments, and Certain Vitamins (2)—Two lectures.

A study of the structure and reactions of the more important polyene pigments and those vitamins whose structure is known. (Drake.)

Chem. 203 C f. Sterols and Sex Hormones (2)—Two lectures.

A study of the structure and reactions of the more important sterols, and the sex hormones. (Not offered in 1940-41.) (Drake.)

Chem. 205 f or s. Organic Preparations (2-4)—Two or four laboratories.

A laboratory course, devoted to the synthesis of various organic compounds, and designed to fit the needs of students whose laboratory experience has been insufficient to enable them to pursue research in organic chemistry. Laboratory fee, $8.00 per semester. (Mozingo.)

Chem. 206 f or s. Organic Microanalysis (4)—Prerequisite, consent of the instructor.

A laboratory study of the methods of Pregl for the quantitative determination of halogen, nitrogen, carbon and hydrogen, and methoxyl. Laboratory fee, $8.00 per semester. (Drake.)

Chem. 207 f or s. Organic Qualitative Analysis (2-6).

Laboratory work devoted to the identification of pure organic substances and of mixtures. This course serves as an intensive preparation for the problems of identification encountered in organic research, and should be taken by all students planning to do research in organic chemistry. Laboratory fee, $8.00 per semester. (Mozingo.)

Chem. 210 y. Advanced Organic Laboratory (4 or 6)—Two or three laboratories. Students electing this course should elect Chem. 116 y.

The content of the course is essentially that of Chem. 117 y and 118 y, but may be varied within wide limits to fit the needs of the individual student. Laboratory fee, $8.00 per semester. (Mozingo.)

Chem. 235 A s. Chemistry of Certain Natural Organic Bases (2)—Two lectures.

A review of the chemistry of the simple amines and a study of the alkaloids, and related compounds. (Not offered 1940-41.) (Mozingo.)

Chem. 235 B s. Physical Aspects of Organic Chemistry (2)—Two lectures.

The practical applications of modern theories of physics and physical chemistry to the problems of structure and reactions of organic substances. (Not offered 1940-41.) (Mozingo.)

Chem. 235 C s. The Heterocyclics (2)—Two lectures.

A study of some of the heterocyclic compounds with special reference to those related to natural products. (Mozingo.)

D. Physical Chemistry

For Advanced Undergraduates and Graduates

Chem. 102 A y. Physical Chemistry (6)—Three lectures. Prerequisites, Chem. 6 y; Phys. 2 y; Math. 23 y.

For those taking laboratory, graduate students will elect Chem. 218 f, 219 s, and undergraduates Chem. 102 B y.

This course aims to furnish the student with a thorough background in the laws and theories of chemistry. The gas laws, kinetic theory, liquids, solutions, elementary thermodynamics, thermochemistry, equilibrium, chemical kinetics, etc., will be discussed. (Haring.)

Chem. 102 B y. Physical Chemistry Laboratory (4)—Two laboratories. For undergraduates taking Chem. 102 A y. Prerequisite, Chem. 4.

The course consists of quantitative experiments designed to demonstrate physico-chemical principles, illustrate practical applications and acquaint the student with precision apparatus. Laboratory fee, $7.00 per semester. (Lamb.)

Chem. 103 A y. Elements of Physical Chemistry (4)—Two lectures. Prerequisites, Chem. 1 y; Phys. 1 y; Math. 8 f, 10 s; or 21 f, 22 s. Undergraduates taking this course must also register for Chem. 103 B y.

The course is designed to meet the needs of premedical students and others unable to pursue the subject farther. Accordingly such topics as solution theory, colloid chemistry, reaction rates, equilibrium, the methods for determining pH, etc., are stressed. (Lamb.)

Chem. 103 B y. Elements of Physical Chemistry Laboratory (2)—One laboratory. This course must be taken by undergraduates enrolled in Chem. 103 A y. Prerequisite, Chem. 4.

Numerous quantitative experiments illustrating the principles discussed in Chem. 103 A y are performed. Laboratory fee, $7.00 per semester. (Lamb.)

Chem. 105 y. Elements of Chemical Thermodynamics (4)—Two lectures. Prerequisite, Chem. 102 A y.

This course is designed for Chemical Engineering majors and is less extensive than Chem. 218 y but with suitable emphasis on all pertinent topics. (Haring.)

For Graduates

Note: All courses in this group have, as prerequisites, Chem. 102 A y for lecture courses and Chem. 102 B y for laboratory courses, or their equivalents.

Chem. 212 A f, 213 A s. Colloid Chemistry (2, 2)—Two lectures.

A discussion of the effects of surface on chemical reactions with numerous practical applications. (Not given in 1940-41.) (Haring.)

Chem. 212 B f, 213 B s. Colloid Chemistry Laboratory (2, 2)—Two laboratories, which must accompany or be preceded by Chem. 212 A f, 213 A s. Laboratory fee, $7.00 per semester. (Not given in 1940-41.) (Haring.)

Chem. 214 f, 215 s. Structure of Matter (2, 2)—Two lectures.

A study of the structure of atoms, molecules, solids and liquids. Molecular structure and related topics will be studied from the standpoints of dipole moments, Raman spectra, and infra-red spectra. (Not given in 1940-41.) (Lamb.)

Chem. 216 f. Phase Rule (2)—Two lectures.

A systematic study of heterogeneous equilibria. One, two, and three component systems will be considered, with practical applications of each. (Haring.)

Chem. 217 s. Catalysis (2)—Two lectures.

This course consists of lectures on the theory and applications of catalysis. (Haring.)

Chem. 218 f, 219 s. Reaction Kinetics (2, 2)—Two lectures.

A study of reaction velocity and mechanisms of reactions in gaseous and liquid systems, and the effect of temperature, radiation, etc., on the same. (Lamb.)

Chem. 220 A f, 221 A s. Electrochemistry (2, 2)—Two lectures.

A theoretical discussion coupled with practical applications. (Haring.)

Chem. 220 B f, 221 B s. Electrochemistry Laboratory (2, 2)—Two laboratories, which must accompany or be preceded by Chem. 220 A f, 221 A s. Laboratory fee, $7.00 per semester. (Haring.)

Chem. 226 y. Chemical Thermodynamics (4)—Two lectures.

A study of the methods of approaching chemical problems through the laws of energy. (Not given in 1940-41.) (Haring.)

Chem. 231 f, 232 s. Physical Chemistry Laboratory (2 or 3, 2 or 3)—Two laboratories and one conference.

Students taking this course may elect six credits of lectures in Chem. 102 A y to replace the conference. Laboratory fee, $7.00 per semester. (Lamb.)

E. Biological Chemistry

Chem. 12 A y. Elements of Organic Chemistry (4)—Two lectures.

The chemistry of carbon and its compounds in relation to biology. This course is particularly designed for students in Agriculture and Home Economics.

Chem. 12 B y. Elements of Organic Laboratory (2)—One laboratory.

A course designed to familiarize the student with the fundamental methods of the organic laboratory. The course is designed to accompany Chem. 12 A y. Laboratory fee, $8.00 per semester.

Chem. 14 s. Chemistry of Textiles (3)—Two lectures; one laboratory. Prerequisites, Chem. 12 A y and 12 B y.

A study of the principal textile fibres, their chemical and mechanical structure. Chemical methods are given for identifying the various fibres and for a study of dyes and mordants. Laboratory fee, $7.00 per semester.

For Advanced Undergraduates and Graduates

Chem. 108 f or s. General Physiological Chemistry (4)—Two lectures; two laboratories. Prerequisites, Chem. 12 A y and 12 B y or their equivalent.

This course is a study of the fundamental principles of human nutrition, the chemistry of foods, digestion, absorption, assimilation, metabolism, tissue composition, and excretion. The laboratory work consists of experiments in food analysis, salivary, gastric, pancreatic and intestinal digestion, and identification of components of blood and urine. Laboratory fee, $8.00 per semester. (Supplee.)

Chem. 115 y. Food Analysis (4)—Two laboratories. (By special arrangement a student may take this course one semester for two hours credit) Prerequisites, Chem. 12 A y and 12 B y or their equivalent.

This course is designed to give the student experience in analytical procedures of particular benefit to workers in the food industries. Particular attention is given to the problems presented in sampling, and in applying standard methods to different types of products. Analytical determinations of value in detecting and estimating various types of decomposition are also stressed. Laboratory fee, $8.00 per semester. (Wiley.)

For Graduates

Chem. 208 f or s. Biological Analysis (2)—Two laboratories.

A course in analytical methods of value to the student whose major field is in the biological sciences. The work is varied somewhat to fit the

needs or interest of the individual student. Laboratory fee, $8.00 per semester. (Wiley.)

Chem. 222 A f, 223 A s. Physiological Chemistry (2, 2)—Two lectures. Prerequisite, Chem. 12 A y and 12 B y or their equivalent.

An advanced course in physiological chemistry. For the first semester the course consists of lectures and assigned reading on the chemistry of the carbohydrates, fats, proteins, and enzymes. The second semester deals with digestion, absorption, metabolism, excretion, hormones, and nutrition. (Supplee.)

Chem. 222 B f, 223 B s. Physiological Chemistry Laboratory (2, 2)—Two laboratories. Prerequisites, Chem. 4 and Chem 12 A y and 12 B y or their equivalent.

A laboratory course to accompany Chem. 222 A f, 223 A s. Qualitative and quantitative food analysis; digestion, nutrition, metabolism, and respiration experiments; and quantitative analysis of the blood and urine. Laboratory fee, $8.00 per semester. (Supplee.)

Chem. 224 f, 225 s. Special Problems (2-4, 2-4)—Two to four laboratories. Laboratory, library, and conference work amounting to a minimum of 10 hours a week. Prerequisites, Chem. 222 A f, 223 A s and consent of the instructor.

This course consists of studies of special methods, such as the separation of the fatty acids from a selected fat, the preparation of carbohydrates or amino acids, the determination of the distribution of nitrogen in a protein, or the detailed analysis of some specific type of tissue. The student will choose the particular problem to be studied with the advice of the instructor. Laboratory fee, $8.00 per semester. (Wiley.)

F. History of Chemistry

For Advanced Undergraduates and Graduates

Chem. 121 y. The History of Chemistry (2)—One lecture. Prerequisites, Chem. 1 y and 8 y or their equivalent.

The development of chemical knowledge, and especially of the general doctrines of chemistry, from their earliest beginnings up to the present day. (Broughton.)

G. Seminar and Research

For Graduates

Chem. 227 f, 228 s. Seminar (1, 1)—Required of all graduate students in chemistry.

Students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject. (Staff.)

Chem. 229. Research in Chemistry.—The investigation of special problems and the preparation of a thesis towards an advanced degree. (Staff.)

CLASSICAL LANGUAGES AND ARCHAEOLOGY

ASSOCIATE PROFESSOR HIGHBY.

Greek

Greek 1 y. Elementary Greek (6)—Three lectures.

Drill and practice in the fundamentals of Greek grammar and the translation of simple prose.

Greek 2 y. Greek authors (6)—Three lectures. Prerequisite, Greek 1 y or equivalent.

Translation of parts of Xenophon and Plato.

Latin

Both a major and a minor are offered in Latin. The minor requires the successful completion of twelve semester hours in language courses higher than Latin 2 y. Four entrance units will also be regarded as fulfilling the regular requirement of twelve credit hours prerequisite to the minor. To make possible the fulfillment of major requirements, further courses will be added in the next issue of the catalogue.

Latin 1 y. Elementary Latin (6)—Three lectures.

This course is intended to give a substantial and accurate knowledge of Latin grammar and syntax, together with practice in reading simple prose.

Latin 2 y. Intermediate Latin (6)—Three lectures. Prerequisite, Latin 1 y or two entrance units in Latin.

Review of forms and syntax. Readings from Caesar and Cicero, Ovid and Virgil.

For Advanced Undergraduates and Graduates

Latin 101 f. Review of Latin Literature (3)—Three lectures. Prerequisite, Latin 2 y or four entrance units in Latin; three units will admit well qualified students.

Review of Latin literature by selected readings from the origins down to the time of the Late Republic. (Not offered in 1940-41.) (Highby.)

Latin 102 s. Review of Latin Literature (3)—Three lectures. Prerequisite, Latin 101 f or special permission of the teacher.

Review of Latin Literature continued; the Age of Augustus and the Early Empire. (Not offered in 1940-41.) (Highby.)

Latin 111 f. Livy's History of Rome (3)—Three lectures. Prerequisite, Latin 2 y or four entrance units in Latin; three units in the case of well qualified students. (Highby.)

Latin 112 s. Horace's Odes (3)—Three lectures. Prerequisite, Latin 111 f or equivalent. (Highby.)

Latin 121 f. Roman Prose Writers (3)—Three lectures. Prerequisite, Latin 2 y or four entrance units in Latin.

Essays of Cicero and Seneca. (Not offered in 1940-41.) (Highby.)

Latin 122 s. Roman Poetry (3)—Three lectures. Prerequisite, Latin 121 f or equivalent.

Satires of Horace and Juvenal. (Not offered in 1940-41.) (Highby.)

Latin 131 f. Tacitus, Germania and Histories (3)—Three lectures. Prerequisite, 12 hours beyond Latin 2 y. (Highby.)

Latin 132 s. Martial, selected Epigrams (3)—Three lectures. Prerequisites, as for Latin 131 f.

If students for this advanced course have read Martial, other Latin poets may be substituted. (Highby.)

Courses Given in English

Classics 3 f. Latin and Greek in Current English Usage (2)—Two lectures. No prerequisite.

This course aims to show how Latin roots are used in English and to make for a more accurate use of English vocabulary. It also supplies the basic knowledge involved in the comprehension or creation of scientific nomenclature. (Highby.)

Classics 4 s. Latin and Greek in Current English Usage (2)—Two lectures. Prerequisite, Classics 3 f.

A continuation of the course outlined above. The study of Latin roots is continued and that of the Greek language elements added. (Highby.)

COMPARATIVE LITERATURE

DR. PRAHL, DR. DARBY, DR. FALLS, DR. FITZHUGH, DR. HALE, MR. MURPHY, MR. ROBERTSON, DR. WARFEL, MISS WILCOX, DR. ZEEVELD, DR. ZUCKER.

A general prerequisite for all courses in Comparative Literature is English 1 y and English 2 f, 3 s. Requirements for major include Comparative Literature 101 f, 102 s.

Comp. Lit. 1 f. Greek Poetry (2)—Two lectures.

Greek Poetry. Homer's *Iliad* and *Odyssey* will be studied. Special emphasis is laid on the literary form, the historical and mythological background.

Comp. Lit. 2 s. Later European Epic Poetry (2)—Two lectures.

Virgil's *Aeneid*, Dante's *Divine Comedy*, *Nibelungenlied*, *Song of Roland*, and other European Epics will be studied. Special emphasis is laid on their relationship to and comparison with the Greek epic.

For Advanced Undergraduates and Graduates

Comp. Lit. 101 f. Introductory Survey of Comparative Literature (3)—Three lectures.

Survey of the background of European literature through study in English

translations of Greek and Latin literature. Special emphasis is laid on Greek drama, along with the development of the epic, tragedy, comedy, and other typical forms of literary expression. The debt of modern literature to the ancients is discussed and illustrated. (Zucker.)

Comp. Lit. 102 s. Introductory Survey of Comparative Literature (3)—Three lectures.

Continuation of Comp. Lit. 101 f; study of medieval and modern Continental literature. (Zucker.)

Comp. Lit. 103 f. Chaucer (3)—Three lectures.

Same as English 104 f, cf. p. 315. (Hale.)

Comp. Lit. 104 s. The Old Testament as Literature (2)—Two lectures.

A study of the sources, development, and literary types. (Hale.)

Comp. Lit. 105 f. Romanticism in France (2)—Two lectures.

Lectures and readings in the French romantic writers from Rousseau to Baudelaire. Texts are read in English translations. (Wilcox.)

Comp. Lit. 106 s. Romanticism in Germany (2)—Two lectures.

Continuation of Comp. Lit. 105 f. German literature from Buerger to Heine. The reading is done in English translations. (Prahl.)

Comp. Lit. 107 f. The Faust Legend in English and German Literature (2)—Two lectures.

A study of the Faust Legend of the Middle Ages and its later treatment by Marlowe in *Dr. Faustus* and by Goethe in *Faust.* **(Prahl.)**

Comp. Lit. 108 f. Milton (2)—Two lectures.

Same as English 108 f, cf. p. 315. (Murphy.)

Comp. Lit. 109 y. Cervantes (6)—Three lectures.

Same as Spanish 105 y, cf. p. 350. (Darby.)

Comp. Lit. 110 s. Introduction to Folklore (2)—Two lectures.

Origin, evolution, and bibliography of types. Literary significance, as seen in the development of prose fiction. Collections, such as the Panchatantra, Seven Sages, Arabian Nights, etc., and the continuation of these tales through medieval and modern literature. (Robertson.)

Comp. Lit. 112 f. Ibsen (2)—Two lectures.

A study of the life and chief works of Ibsen with special emphasis on his influence on the modern drama. (Zucker.)

Comp. Lit. 113 f, 114 s. Prose and Poetry of the Romantic Age (3, 3)—Three lectures.

Same as English 113 f, 114 s, cf. p. 316. (Hale.)

Comp. Lit. 124 s. Contemporary Drama (3)—Three lectures.
Same as English 124 s, cf. p. 317. (Fitzhugh.)

Comp. Lit. 125 f. Emerson, Thoreau, and Whitman (3)—Three lectures.
Same as English 125 f, cf. p. 317. (Warfel.)

For Graduates

Comp. Lit. 200 s. The History of the Theatre (2)—Two lectures. Prerequisite, a wide acquaintance with modern drama and some knowledge of the Greek drama.

A detailed study of the history of the European theatre. Individual research problems will be assigned for term papers. (Not given in 1940-1941.) (Hale.)

Comp. Lit. 201 y. Medieval Romance in England (4)—Two lectures.
Same as English 204 y, cf. p. 319. (Hale.)

Comp. Lit. 203 y. Schiller (4)—Two lectures.
Same as German 203 y, cf. p. 348. (Prahl.)

Comp. Lit. 204 y. Goethe (4)—Two lectures.
Same as German 204 f, 205 s, cf. p. 348. (Zucker.)

Comp. Lit. 205 y. Georges Duhamel, Poet, Dramatist, Novelist (4)—Two lectures.
Same as French 204 y, cf. p. 346. (Falls.)

Comp. Lit. 206 s. Seminar in Sixteenth Century Literature (2)—Two lectures.
Same as English 205 s, cf. p. 319. (Zeeveld.)

Comp. Lit. 207 f. Seminar in Shakespeare (2)—Two lectures. Prerequisites, English 11 f, 12 s.
Same as English 207 f, cf. p. 319. (Zeeveld.)

ECONOMICS‡

PROFESSOR STEVENS, GRUCHY, DEVAULT; LECTURER NEVINS; ASSOCIATE PROFESSORS MARSHALL, WYCKOFF, BENNETT; ASSISTANT PROFESSORS GAY, FISHER, KIRKPATRICK, DANIELS*; MR. REID, MR. MULLIN, MR. SHIRLEY.

Some of the specialized courses in the following lists may be offered only in alternate years, whenever prospective enrollments therein do not justify repeating annually. Such courses are indicated by an asterisk.

Econ. 51 y. Principles of Economics (6)—Prerequisite, sophomore standing.

A study of the general principles of economics; production, exchange, distribution and consumption of wealth. Lectures, discussions, and student exercises.

‡See also related courses in Business Administration, especially Fin. 106 f, 111 f, and 129 s, T. and T. 101 f, and 111 f; and in Agricultural Economics, especially A. E. 1 f, 2 s, 104 s, 106 s, 109 y, 111 y, 210 s, 211 f, 212 f, 213 s, 214 s, and 215 s.
*On leave.

Econ. 57 f or s. Fundamentals of Economics (3)—Prerequisite, sophomore standing. Not open to students who have credit in Econ. 51 y.

A brief study of the general principles underlying economic activity. Designed to meet the needs of special technical groups, such as students of engineering, home economics, agriculture, and others who are unable to take the more complete course provided in Economics 51 y.

For Advanced Undergraduates and Graduates

Econ. 130 f. Labor Economics (3)—Prerequisite, Econ. 51 y or 57.

Insecurity, wages and income, hours, substandard workers, industrial conflict; wage theories; the economics of collective bargaining; unionism in its structural and functional aspects; recent developments. (Marshall.)

Econ. 131 s.* Labor and Government (3)—Prerequisite, Econ. 51 y.

A study of society's efforts through legislation to improve labor conditions. State and federal laws and court decisions affecting wages, hours, working conditions, immigration, convict labor, union activities, industrial disputes, collective bargaining, and economic security. (Marshall.)

Econ. 133 f.* Industrial Relations (3)—Prerequisite, Econ. 51 y.

A study of the development and methods of organized groups in industry with reference to the settlement of labor disputes. An economic and legal analysis of labor union and employer association activities, arbitration, mediation, and conciliation; collective bargaining, trade agreements, strikes, boycotts, lockouts, company unions, employee representation, and injunctions. (Marshall.)

Econ. 136 s. Economics of Consumption (3)—Prerequisite, Econ. 51 y or 57.

The place of the consumer in our economic system. An analysis of demand for consumer goods. The need for consumer-consciousness and a technique of consumption. Cooperative and governmental agencies for consumers. Special problems. (Marshall.)

Econ. 145 s.* Public Utilities (3)—Prerequisite, Econ. 51 y or 57.

Economic and legal characteristics of the public utility status; problems of organization, production, marketing, and finance; public regulation and alternatives. (Wyckoff.)

Econ. 151 f.* Comparative Economic Systems (3)—Prerequisite, Econ. 51 y.

An investigation of some of the more important social reform movements and programs of the modern era. The course begins with an examination and evaluation of the capitalistic system, followed by an analysis of alternative types of economic control such as socialism, communism, nazism, fascism, and the cooperative movement. (Wyckoff.)

Econ. 152 s.* Social Control of Business (3)—Prerequisite, Economics 51 y or 57.

The reasons for and the methods of avoidance, escape, and abuse of competition as a regulating force in business. Social control as a substitute for, or as a modification of, preservation of competition. Law as an instrument of social control through administrative law and tribunals. The constitutional aspects of social control. (Shirley.)

Econ. 153 f.* Industrial Combination (3)—Prerequisite, Econ. 51 y.

The development of industrial combinations in the United States; the causes which brought about the trust movement; trade and business methods employed by these combinations; types of big business; anti-trust legislation in this country and its effects. (Wyckoff.)

Econ. 161 f. Economics of Cooperative Organization (3)—Prerequisite, Econ. 51 y or 57. (See also O. and M. 149 f, s, or S, A. E. 103 f, and O. and M. 161.)

Analysis of the principles and practice of cooperation in economic activity from the viewpoint of effective management and public interest. Potentialities, limitations, and management problems of consumer, producer, marketing, financial, and business men's cooperatives. (Stevens.)

Econ. 190 f. Advanced Economic Principles (3)—Prerequisites, Econ. 51 y or 57 and senior standing or consent of the instructor.

An analysis of advanced economic principles with special attention to recent developments in value and distribution theory. (Gruchy.)

Econ. 191 s. Contemporary Economic Thought (3)—Prerequisite, senior or graduate standing.

A survey of recent trends in English, American and Continental economic thought, with special attention paid to the institutionalists, the welfare economists, and the mathematical economists. (Gruchy.)

For Graduates

Econ. 201. Research (2-6)—Credit in proportion to work accomplished. Prerequisite, consent of the instructor. Student must be especially qualified to pursue effectively the research to be undertaken.

Investigation or original research in problems of economics under supervision of the instructor. (Staff.)

Econ. 203 y. Seminar (4)—Prerequisites, concurrent graduate major in economics or business administration and consent of instructor.

Discussion of major problems in the field of economic theory, accounting, cooperation, or business. (Staff.)

Econ. 205 f. History of Economic Thought (3)—Prerequisite, Econ. 51 y.

A study of the development of economic thought and theories, including the ancients, the Greeks, the Romans, scholasticism, mercantilism, physi-

ocrats, Adam Smith and contemporaries, Malthus, Ricardo, and John Stuart Mill. (Marshall.)

Econ. 206 s. Economic Theory in the Nineteenth Century (3)—Prerequisite, Econ. 205 f.

A study of the various schools of economic thought, particularly the classicists, the neo-classicists, the Austrians, and the socialists. (Marshall.)

Econ. 210 f, 211 s. Special Problems in Economic Investigation (1-3, 1-3)—Each semester credit in proportion to work accomplished.

Technique involved in economic research. Practice in drawing up schedules and programs. Individual conferences and reports. (Stevens.)

Econ. 233 s. Problems in Industrial Relations (3)—Prerequisite, preliminary courses in the field of specialization, and permission of the instructor.

The subjects selected for study may be closely allied with, but must not be the same, as the subject discussed in the student's major thesis. (Marshall.)

Econ. 252 s. Problems in Government and Business Interrelations (3)—Prerequisite, preliminary courses in the field of specialization, and permission of the instructor.

The subjects selected for study may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.

Econ. 298 f, 299 s. Problems in Economics of Cooperation (1-3, 1-3)—Prerequisite, six semester hours in accounting, three in finance, three in statistics, eight in economics, and three in cooperative theory.

Problems may involve practical work with the National Cooperative Council and other Washington (D. C.) or Maryland cooperative organizations. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Stevens.)

EDUCATION

PROFESSORS BENJAMIN, SMALL, BROWN, DREW, POWERS, LONG, MACKERT, MCNAUGHTON, JOYAL, HAND; ASSOCIATE PROFESSOR BRECHBILL; ASSISTANT PROFESSOR GALLINGTON; MISS CLOUGH; MISS SMITH.

A. History and Principles

Ed. 2 f, 3 s. Introduction to Teaching (2, 2)—Required of sophomores in Education.

A finding course, with the purpose of assisting students to decide whether they have qualities requisite to success in teaching. Study of the physical qualifications, personality traits, personal habits, use of English, speech, and habits of work; and of the nature of the teacher's work.

Ed. 5 f or s. Technic of Teaching (2)—Required of juniors in Education. Prerequisite, Psych. 10 f.

Educational objectives and outcomes of teaching; types of lessons; problem, project, and unit; measuring results and marking; socialization and directed study; classroom management.

Ed. 6 s, 7 f. Observation of Teaching (1, 1)—Prerequisite, Psych. 10 f.

Twenty hours of directed observation. Reports, conferences, and criticisms.

For Advanced Undergraduates and Graduates

Ed. 100 f. History of American Education (2)—Two lectures.

The course traces the origins and development of the concepts and practices which now characterize contemporary American education. The elementary and secondary schools, teacher training, and higher education will be considered, as well as the emergence of the junior high school and the junior college. (Long.)

Ed. 101 f. History of Education (2)—Greco-Roman, Medieval, and Early Modern Education.

A survey of the evolution in Europe of Educational theory, institutions, and practices from the Greco-Roman era to 1750. (Long.)

Ed. 102 s. History of Modern Education (2)—Continuation of Ed. 101 f.

The survey of the modern period is directed to the creators of modern education and the bases on which modern educational systems have been founded in various countries. (Long.)

Ed. 103 s. The High School (3)—Prerequisite, senior standing.

The secondary school population, its nature and needs; the school as an instrument of society; relation of the secondary school to other schools; aims of secondary education; curriculum and methods in relation to aims; extra-curricular activities; guidance and placement; the school's opportunities for service to its community; teacher certification and employment in Maryland and the District of Columbia. (Brechbill.)

Ed. 105 f. Educational Measurements (3)—Three lectures. Prerequisite, consent of instructor.

A study of tests and examinations with emphasis upon their construction and use. Types of tests; purposes of testing; elementary statistical concepts, and processes used in summarizing and analyzing test results; school marks. (Brechbill.)

Ed. 107 f. Comparative Education (2)—Two lectures.

The forces that cause different systems of education, and the characteristic differences in the educational policies and practices in various countries are studied in this course. The major emphasis is upon certain European systems. (Long.)

Ed. 108 s. Comparative Education (2).

This course is similar to Ed. 107, an important difference being that education in Latin America receives major attention. (Benjamin.)

Ed. 110 f. The Junior High School (3)—Prerequisite, senior standing.

Definition and history of the junior high school; physical, mental, and social traits of the junior high school pupil; purposes, functions, and limitations; types of reorganized schools; articulation with lower and higher schools; duties and responsibilities of the administrative and teaching staff; the program of studies; exploratory courses; departmentalization; provisions for individual differences; the guidance program; significant problems and challenges implied in present trends. (Joyal.)

Ed. 112 f. Educational Sociology-Introductory (3).

Discussion of the social-economic background of the school population, its history, setting, and subsequent adjustments. (Hand.)

Ed. 114 s. Guidance in the Schools (3).

Objectives, problems, and organization of the guidance service; assembling and using information concerning students; counseling procedures. (Hand.)

See also Agricultural Education and Rural Life, p. 240.

For Graduates

Ed. 200 f. Organization and Administration of Public Education (2).

This course deals with the organization, administration, curricula, and present status of public education in the United States. (Joyal.)

Ed. 202 s. The Organization and Administration of Secondary Schools (2)—Two lectures.

This course will consider the principal's duties in relation to organization of secondary school units; selecting and assigning the staff; schedule making; school records and accounting systems; organization of guidance and extra-curricular activities; testing and the marking system; public relations and publicity; professional improvement. (Joyal.)

Ed. 203 s. High School Supervision (2)—Two lectures.

This course will deal with the nature and functions of supervision in a modern school program; recent trends in supervisory theory and practice; teacher participation in the determination of policies; planning of supervisory programs; appraisal of teaching methods; curriculum reorganization and other direct and indirect means for the improvement of instruction. (Joyal.)

Ed. 212 s. Educational Sociology-Advanced (2).

A study of materials bearing upon the problem of civic education with particular attention to the behavior of the electorate and political leadership. (Hand.)

Ed. 216 s. School Finance and Business Administration (2).

School revenue and taxation; State and Federal aid; budgets and budget making; internal school finance. (Joyal.)

Students qualifying for the degree of Master of Education will elect the required four semester hours of seminar work from the following list of seminars (Ed. 220-Ed. 234, inclusive). These courses are open for election by any other graduate student in Education.

Ed. 220 f. Seminar in Secondary Education (2). (Hand.)

Ed. 222 f. Seminar in Adult Education (2). (Benjamin.)

Ed. 224 s. Seminar in History of Education (2). (Long.)

Ed. 226 f. Seminar in Administration (2). (Joyal.)

Ed. 228 s. Seminar in Supervision (2). (Joyal.)

Ed. 230 f. Seminar in Science Education (2). (Brechbill.)

Ed. 232 s. Seminar in Guidance (2). (Hand.)

Ed. 234 s. Seminar in Comparative Education (2). (Benjamin.)

Note: Ed. Psych. 210 y. Seminar in Educational Psychology (6) may also be used to satisfy this requirement.

Note: See also Phys. Ed. 201 y, page 299.

B. Educational Psychology

(For full descriptions of these courses, see "Psychology", p. 364.)

Ed. Psych. 10 f or s. Educational Psychology (3).

Ed. Psych. 110 f or s. Advanced Educational Psychology (3).

Ed. Psych. 125 f. Child Psychology (3).

Ed. Psych. 130 f or s. Mental Hygiene (3).

Ed. Psych. 210 y. Seminar in Educational Psychology (6).

C. Methods in High School Subjects

For Advanced Undergraduates and Graduates

Graduate credit for courses in this section will be given only by special permission of the College of Education.

Ed. 120 s. English in the High School (3). Prerequisite, Psych. 10.

Objectives in English in the different types of high schools; selection and organization of subject matter in terms of modern practice and group needs; evaluation of texts and references; bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Smith.)

Ed. 122 s. The Social Studies in the High School (3). Prerequisite, Psych. 10.

Objectives and present trends in the social studies; texts and bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Clough.)

Ed. 124 s. Modern Language in the High School (3). Prerequisite, Psych. 10.

Objectives of modern language teaching in the high school; selection and organization of subject matter in relation to modern practice and group needs; evaluation of texts and references; bibliographies; methods of procedure and types of lessons; lesson plans; special devices; measuring results.

Ed. 126 s. Science in the High School (3). Prerequisite, Psych. 10.

Objectives of science teaching, their relation to the general objectives of secondary education; application of the principles of psychology and of teaching to the science class-room situation; selection and organization of subject matter; history, trends, and status; textbooks, reference works, and laboratory equipment; technic of class room and laboratory; measurement, standardized tests; professional organizations and literature. (Brechbill.)

Ed. 128 s. Mathematics in the High School (3). Prerequisite, Psych. 10.

Objectives; the place of mathematics in secondary education; content and construction of courses; recent trends; textbooks and equipment; methods of instruction; measurement and standardized tests; professional organizations and literature. (Brechbill.)

Ed. 138 f. Visual Education (2).

Visual impressions in their relation to learning; investigations into the effectiveness of instruction by visual means; projection apparatus, its cost and operation; slides, film strips, and films; physical principles underlying projection; the integration of visual materials with organized courses of study; means of utilizing commercial moving pictures as an aid in realizing the aims of the school. (Brechbill.)

Ed. 139 f or s. Supervised Teaching of High School Subjects (1-2). Prerequisites, Psych. 10, Ed. 5 and 6 s, and the appropriate special methods.

Five periods of observation and participation followed by 20 periods of actual teaching for two semester hours of credit and by 10 periods of actual teaching for one semester hour of credit. Two semester hours are required. The teaching may all be done in one subject or may be done in two subjects.

Students desiring more than this amount must obtain special permission from the Dean of the College of Education, and may be required to pay the actual cost of such additional teaching.

Application for registration in this course must be made on the proper form before the beginning of the school year in which the teaching is

to be done. Students taking this course should arrange their schedules in advance so as to avoid serious time conflicts with other courses.

(Brechbill and Staff.)

E. English.
S. S. Social Studies.
L. Modern Language.
Sc. Science.
M. Mathematics.
P. E. Physical Education.
C. Commercial Subjects.
I. Industrial Education.
R. Recreation.

***Ed. 142 f. Physical Education in the High School (2).**—Prerequisites, Psych. 10, and Ed. 5.

Objectives of physical education in high school situations; materials and procedures in relation to lesson planning, handling classes, physical examinations, discipline, records, grading, program, and the like.

***Ed. 143 f. Methods in Recreation (2).**—Two lectures.

Major functions of recreation; selection and organization of subject matter; methods of instruction; planning, directing, and supervising projects for worthwhile achievements will be considered.

***Ed. 145 s. Teaching Health (2).**—Two lectures.

A course required of all seniors in physical education and recreation, which meets twice a week for one semester. Prerequisites, Phys. Ed. 11 f, 13 f, and 16 s.

Philosophy, aims, objectives, problems, materials, methods and procedures for teaching health.

Ed. 150 f, 151 s. Commercial Subjects in the High School (1-3, 1-3).—Prerequisite, Psych. 10.

Aims and methods for the teaching of shorthand, typewriting, and bookkeeping in high schools.

HOME ECONOMICS EDUCATION

PROFESSOR MCNAUGHTON

H. E. Ed. 5 s. Technic of Teaching (2).—Required of juniors in Home Economics Education. Prerequisite, Psych. 10.

Philosophy of home economics education; survey of the needs of the community; analysis of the characteristics and interests of the high school girl; objectives for teaching home economics in high school; construction of units; use of problem, discussion, demonstration, and laboratory methods; selection of illustrative material; the home project.

*Open to men and women.

H. E. Ed. 6 s. Observation of Teaching (1)—Twenty hours of directed observations.

Reports, conferences, and criticisms.

For Advanced Undergraduates and Graduates

H. E. Ed. 102 f or s. Child Study (3)—Prerequisite, Psych. 10.

The study of child development in relation to the physical, mental, and emotional phases of growth; study of textbooks and magazines; adaptation of material to teaching of child care in high school; observation and participation in University Nursery School. (McNaughton.)

H. E. Ed. 103 f or s. Teaching Secondary Vocational Home Economics: Methods and Practice (3).—Prerequisite, H. E. Ed. 5 s.

Observation and teaching in a vocational department of a Maryland high school or in a junior high school in Washington. Organization of units, lesson plans, field trips; planning and supervision of home projects. After completing the teaching unit the student observes in home economics departments other than one in which she has taught. (McNaughton.)

H. E. Ed. 104 s. Nursery School Techniques (2-3)—Prerequisite, Psych. 10. Open to seniors. Designed for Nursery School teachers.

Philosophy of preschool education; principles of learning; routines; study of children's interests and activities; observation and teaching in the nursery school. (McNaughton.)

H. E. Ed. 105 f or s. Special Problems in Child Study (3).—Open to seniors. Prerequisite, H. E. Ed. 102.

Methods and practice in nursery school work in University Nursery School; making of particular studies related to the mental, emotional, or physical development of preschool children. (McNaughton.)

H. E. Ed. 106 f, 107 s. Problems in Teaching Home Economics (1, 1).

Reports of units taught; analysis of the units in the State course of study; study of various methods for organization of class period; analysis of text books; evaluation of illustrative material. (McNaughton.)

For Graduates

H. E. Ed. 201 f or s. Advanced Methods of Teaching Home Economics (2-4).

Study of social trends as applied to the teaching of home economics. (McNaughton.)

H. E. Ed. 250 y. Seminar in Home Economics Education (2-4). (McNaughton.)

INDUSTRIAL EDUCATION

For each semester hour of credit for shop and drawing courses two or three periods of lecture and practice are scheduled depending upon the specific needs of the course.

Ind. Ed. 1 f, 2 s. Mechanical Drawing (2, 2).

Fundamental practices in the projection of objects, the making of working drawings, pattern layouts, tracing and blue-printing, and the principles in machine design including the study of conventions and the sketching of machine parts.

Ind. Ed. 3 f. Elementary Woodworking (3).

This course deals with the use and care of woodworking tools and materials in bench practice involving the principles of joinery, including the application of woodworking finishes. Laboratory fee, $4.00.

Ind. Ed. 4 s. Advanced Woodworking (3).—Prerequisite, Ind. Ed. 3 f or equivalent.

Practice in the application of design and construction of projects in wood involving the use of woodworking machinery suitable for the high school shop. It includes furniture construction and machine cabinet work, with some emphasis on manufacturing practices. Basic wood turning and a working knowledge of wood pattern making is taught, and practice given in coloring, finishing, and painting wood. Laboratory fee, $4.00.

Ind. Ed. 5 f. Sheet Metal Work (2).

Information is given on materials, tools, and processes. Practice is given in soldering, the laying out of patterns, and the making of a group of elementary graded problems which involve items of practical use. Laboratory fee, $2.50.

Ind. Ed. 6 s. Art Metal Work (2).

This course deals with the designing and construction of art metal projects, including the use of brass, copper, silver, aluminum, pewter, and other alloys. Laboratory fee, $2.50.

Ind. Ed. 7 y. Architectural Drawing (2).

Practical experience in the design and planning of homes and other buildings. Drawings, specifications, and blue-prints including the study of conventions and detail parts are featured.

Ind. Ed. 8 y. Electricity (4).

The essentials of electricity in industrial and other life situations. Units of work are completed in house and signal wiring, power wiring, autoignition, and the fundamental principles involved in direct current machinery and alternating current machinery. It provides teachers of electricity with sufficient material and data to cope with the problem of electrical projects for high school class construction. Laboratory fee, $2.50 per semester.

Ind. Ed. 9 s. Elementary Machine Shop (2).

This course includes bench work, tool grinding, and elementary practice in the fundamentals of operating machine tools. Laboratory fee, $2.50.

Ind. Ed. 10 f. Cold Metal Work (2).

This course is concerned with the development of fundamental skills, and knowledges involved in the design and construction of projects from band iron and other forms of mild steel. Laboratory fee, $2.50.

Ind. Ed. 11 f. Foundry (1).

Laboratory practice in bench and floor moulding and elementary core making. Theory and principles covering foundry materials, tools, and appliances are presented, including consideration of mixtures for casting gray iron, brass, bronze, and aluminum. Laboratory fee, $2.00.

Ind. Ed. 12 f. Forge Practice (1).

Laboratory practice in forging and heat treating of metals. Theory and principles of handling tools and materials in the drawing out, upsetting, cutting, bending, twisting, welding, annealing, hardening, tempering and grinding of steel. Laboratory fee, $2.00.

Ind. Ed. 13 f. Advanced Machine Shop (2).—Prerequisite Ind. Ed. 9 s or equivalent.

Laboratory experiences in the fundamental operations on lathe, shaper, drill press, and other machine shop equipment. Laboratory fee, $2.50.

Ind. Ed. 14 s. Shop Maintenance (1).

Skill developing practice in the up-keep and care of school shop tools and equipment. Saw filing, the sharpening of edged power tools, the design and construction of tool racks, and the adjusting and oiling of power machinery are among the major units offered.

For Advanced Undergraduates

Ind. Ed. 160 y. Essentials of Design (2)—Prerequisites, Ind. Ed. 1 f, 2 s, or equivalent.

A study of the basic principles of design and practice in their application to the construction of high school shop projects. It presents knowledge and develops abilities in the art elements of line, mass, color, and design, and employs laboratory activities in freehand and mechanical drawing, tracing, and blue-printing. (Gallington.)

Ind. Ed. 162 s. Industrial Education in the High School (2)—Prerequisite, Psych. 10.

Major functions and specific aims of industrial education; their relation to the general objectives of the junior and senior high schools; selection and organization of subject matter in terms of modern practices and needs; methods of instruction; expected outcomes; measuring results; professional standards. (Brown.)

Ind. Ed. 163 f. Occupations, Guidance, and Placement (2)—Open to juniors and seniors.

Survey of the educational and vocational guidance movement; typical public school means and methods; use of occupational information; duties of the counselor; organization and cooperative relationships as affecting modern youth. (Brown.)

Ind. Ed. 164 s. Shop Organization and Management (2).

This course recapitulates methods of organization and management for teaching shop subjects. It includes organization and management of pupils; daily programs; projects; pupils' progress charts; selection, location, and care of tools, machines, equipment, and supplies; records and reports; and good school housekeeping. Opportunity is provided for visits to industrial plants as a basis for more practical planning of shop instruction and management. (Brown.)

Ind. Ed. 165 f, 166 s. Evolution of Modern Industry (2, 2).

The origin and development of our modern industrial system. A review of the industrial progress of man through the various stages of civilization down to modern factory organization and practice, as related to Industrial Education.

First semester (165 f) is a survey of industrial development up to and including the Industrial Revolution. The second semester (166 s) covers the period from the Industrial Revolution to the present time. (Brown.)

Ind. Ed. 167 y. General Shop (4).—Elective for juniors and seniors.

A general survey course designed to meet teacher training needs in organizing and administering a high school General Shop course. Special teaching methods are emphasized as students are rotated through skill and knowledge developing activities in mechanical drawing, electricity, woodworking, and general metal working. Laboratory fee, $2.50 per semester. (Gallington.)

PHYSICAL EDUCATION

Physical Education and Recreation for Men and Women

A. Professor Mackert; Mr. McCaw, Mr. English.

B. Professor Drew; Assistant Professor Middleton; Dr. Karpeles.

Note: A special uniform is required of all those enrolled in any physical activities course.

Phys. Ed. 1 y. Physical Activities I: M (2)—An activities course for male freshmen, which meets three periods a week throughout the year.

The activities taught are soccer, touch football, basketball, volleyball, soft baseball, track, and natural gymnastics.

Phys. Ed. 2 y. Personal Hygiene (1)—Freshman course for women.

This course consists of instruction in hygiene one period a week throughout the year. The health ideal and its attainments, care of the body by diet, exercise, sleep, bathing, etc., and social hygiene.

Phys. Ed. 3 y. Physical Activities II: M (4)—An activities course for sophomore men, which meets three periods a week throughout the year.

The activities taught are the team sports of the freshman year, and individual sports which include fencing, wrestling, tumbling, boxing, ping pong, horseshoe pitching, handball, golf, tennis, and badminton.

Phys. Ed. 4 y. Physical Activities: W (1)—Freshman course for women. Meets twice each week throughout the year.

The following phases of physical education are considered:** Tennis, hockey, soccer, basketball, volleyball, badminton, soft ball, archery, table tennis, shuffleboard, folk dancing, and ballroom dancing.

Phys. Ed. 5 y. Athletics I: M (4)—An activities course required of male freshmen in physical education or recreation, which meets five times a week throughout the year.

Two periods a week are devoted to training in activities for squad leadership, and three periods a week to participation in the activities of the general physical education program.

Phys. Ed. 6 y. Community Hygiene (2)—Sophomore course for women.

Continuation of the freshman course. The work in hygiene includes the elements of physiology, the elements of home, school, and community hygiene, and a continuation of social hygiene.

Phys. Ed. 8 y. Physical Activities: W (2)—Sophomore course for women. Meets twice each week.

Continuation of the work of the freshman year. With the permission of the head of the department, a student may be permitted to substitute activity courses offered in the major curriculum.

Phys. Ed. 10 y. Dance I (2)—Required of freshmen women whose major is Physical Education and open to others with the permission of the instructor.

This course includes practice in elementary techniques and considers the basic principles of time, force, and space underlying all dance. Opportunity is given for creating short dances in respect to form and content.

***Phys. Ed. 11 f. Hygiene (2)**—A course required of all sophomores in physical education or recreation which meets twice a week for one semester.

This course surveys the health practices of college students and their community in the light of standard criteria, to the end that the individual

*Open to men and women.

**An individual activity program suited to need is arranged upon the recommendation of the University physician.

student may increase his ability to adapt himself to conditions of finer living.

Phys. Ed. 12 y. Athletics I: W (4)—Required of freshmen women whose major is Physical Education. Meets twice each week plus two hours arranged in which the student acts as assistant in a section of Phys. Ed. 4 y.

The following sports are considered: In the first semester, hockey, soccer, basketball, badminton, and volleyball; in the second semester, bowling, tennis, golf, and soft ball.

***Phys. Ed. 13 f. Accident Prevention (1)**—A course required of all juniors in Physical Education or Recreation, which meets twice a week for one semester.

This course is designed to help the professional student detect accident hazards in physical activities, and to train him in safety precautions.

Phys. Ed. 14 y. Dance II (2)—Prerequisite, Phys. Ed. 10 y or equivalent. Required of sophomore women whose major is Physical Education and open to others with the permission of the instructor.

This course includes practice in techniques of modern dance and a study of the contemporary field. Opportunity is given to create dance patterns for group or individual in respect to form and content.

Phys. Ed. 15 y. Gymnastics I (2)—An activities course required of sophomore men in Physical Education or Recreation, which meets three periods a week throughout the year.

The activities taught are light and heavy gymnastics, including marching, calisthenics, tumbling, pyramid building, and exercise on apparatus.

***Phys. Ed. 16 s. First Aid (1)**—Required of junior men and women whose major is Physical Education or Recreation. Meets twice each week.

The course presents the fundamentals necessary for offering aid in accidents and injuries until medical attention can be secured. Practical work is required of all students.

Phys. Ed. 17 y. Gymnastics II (2)—An activities course for juniors and seniors which meets three periods a week throughout the year. Prerequisite, Phys. Ed. 15 y or the equivalent.

This course is a continuation of Phys. Ed. 15 y. Advanced work in tumbling, apparatus and pyramid building.

***Phys. Ed. 20 s. Physical Education I (2)**—Required of sophomore men and women whose major is Physical Education or Recreation. Meets twice each week.

This course offers an introduction to Physical Education through a study of historical and contemporary work in this field. It includes a survey of the possibilities of the profession.

*Open to men and women.

Phys. Ed. 22 y. Athletics II: W (4)—Required of sophomore women whose major is Physical Education.

This course is a continuation of Phys. Ed. 12 y.

***Phys. Ed. 26 y. Dance III (2)**—Required of junior men and women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week.

The course offers opportunity for the learning of the fundamental ballroom dance steps as well as the more modern routines. Attention is given to ballroom etiquette and the planning of dance parties.

***Phys. Ed. 28 f. Dance IV (1)**—Required of junior women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week for one semester.

This course includes suitable teaching material in tap dancing for school or recreation groups.

***Phys. Ed. 30 s. Dance V (1)**—Required of junior women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week for one semester.

The course includes historical and contemporary folk dances, festivals, and customs of various countries as well as the costume appropriate for each.

***Phys. Ed. 52 y. Physical Activities III (2)**—Required of junior men and women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week.

The course presents co-educational and co-recreational activities suitable for school, club, and recreation groups. Games and stunts for contests, picnics, school parties, and other social gatherings are considered.

For Advanced Undergraduates

Phys. Ed. 113 y. Athletics III: M (2)—Required of junior men in Physical Education or Recreation, which meets once a week throughout the year. Prerequisite, two years of successful intramural participation.

Problems of coaching and officiating in intramural play and high school athletics. Participation in the intramural program at the University, or in nearby schools, is a requirement of the course. (Mackert.)

Phys. Ed. 114 y. Athletics IV: W (2)—Required of senior women whose major is Physical Education. Meets twice each week. Prerequisites, Phys. Ed. 12 y and 16 y.

The student is given the opportunity to coach and officiate under supervision in the intramural program on the campus as well as to officiate in the schools in Washington, D. C., and Maryland. With the cooperation of the teachers in nearby schools the students plan and administer invitational sports days in the respective schools. (Drew.)

*Open to men and women.

Phys. Ed. 119 y. Physical Education Practice (2)—A practical course for senior men in Physical Education or Recreation. Prerequisite, Phys. Ed. 113 y or the equivalent.

The aim of this course is to provide students with opportunities to assist in teaching, coaching, and officiating in the schools of Maryland, and the athletic tournaments conducted by these schools through the State Department of Education. The equivalent of two hours of practice is required each school week throughout the year. Individual conferences will be arranged in order that students may discuss with the instructor the problems that arise for them, and the class will meet occasionally to pool experiences. (Mackert.)

***Phys. Ed. 125 f. Physiology of Exercise (2)**—A course required of all juniors in Physical Education or Recreation, which meets twice a week for one semester.

This course presents the background of science for the workings of the human body from the standpoint of power-building and acquisition of skills. (Mackert.)

***Phys. Ed. 131 f. Recreation I (3)**—A course required of juniors electing the curriculum in Recreation, which meets twice a week for one semester. Twenty directed observations are a requirement of the course.

Sponsoring organizations of boys' and girls' clubs; how clubs are organized; support of clubs; program planning and administration will be considered. (Mackert.)

***Phys. Ed. 132 s. Nature of Play (2)**—Required of junior men and women whose major is Physical Education or Recreation. Meets twice each week for one semester.

The psychology of action, the uses of play, the types and organization of play activities and the management of play space are considered in the course. (Drew.)

***Phys. Ed. 133 s. Recreation II (3)**—A course required of juniors electing the curriculum in Recreation, which meets twice a week for one semester. Twenty directed observations are a requirement of the course.

The playground as a laboratory for the classroom; programs and problems of the playground; materials, methods, and supervision will be discussed. (Mackert.)

***Phys. Ed. 135 f. Recreation III (3)**—A course required of seniors electing the curriculum in Recreation, which meets twice a week for one semester. Twenty directed participations are required.

A comprehensive study of various types of socialized communities in terms of recreational projects. The church, the home, and the school as factors in community recreation will be studied. (Mackert.)

*Open to men and women.

***Phys. Ed. 137 f. Recreation IV (2)**—A course required of all seniors in Physical Education or Recreation, which meets twice a week for one semester. Prerequisites, Phys. Ed. 113 y or 114 y, and three years of successful participation in intramural athletics or the equivalent.

The purpose of this course is to study the various aspects of character guidance through leadership in physical activities. Participation in planning, supervising, and directing the University program of intramural activities, or an equivalent situation, is a requirement of the course. (Mackert.)

Phys. Ed. 144 s. Physical Education IV (2)—A course required of all seniors in Physical Education or Recreation, which meets twice a week for one semester. Prerequisites, Phys. Ed. 113 y or 114 y, and three years of successful participation in intramural athletics or the equivalent.

The organization and administration of programs of Physical Education in high school situations. (Drew.)

For Graduates

***Phys. Ed. 201 f or s. Problems of Health and Physical Education (3).**

This course is designed to aid in solving the multitude of problems that arise in the administration of health and physical education in public schools. An attempt will be made to set up standards for evaluating the effectiveness of programs of health and physical education. (Mackert.)

ENGINEERING

PROFESSORS STEINBERG, CREESE, HUFF, YOUNGER; LECTURERS DILL, HALL, KEAR, WALKER; ASSOCIATE PROFESSORS HODGINS, HUCKERT; ASSISTANT PROFESSORS HOSHALL, PYLE, ALLEN, MACHWART, ERNST, LANING, GREEN; MR. LOWE, MR. MOORE, MR. MCLAUGHLIN, MR. SHERWOOD, MR. FRAYER.

Chemical Engineering

Ch. E. 10 s. Water, Fuels, and Lubricants (4)—Two lectures; two laboratories. Prerequisites, Chem. 8 A y and 4 f; Phys. 2 y.

Laboratory work consists of exercises in the usual control methods for testing water, fuels, and lubricants, and some related engineering materials. Laboratory fee, $8.00.

For Advanced Undergraduates and Graduates

Ch. E. 103 y. Elements of Chemical Engineering (6)—Three lectures. Prerequisites, Chem. 8 A y and 8 B y; Phys. 2 y.*

Theoretical discussion of general underlying philosophy and methods in chemical engineering, such as presentation of data, material balances,

*Open to men and wom

and heat balances. Illustrated by consideration of typical problems and processes.

Ch. E. 104 y. Chemical Engineering Seminar (2)—Required of all undergraduate students in chemical engineering.

Students prepare reports on current problems in chemical engineering and participate in the discussion of such reports.

Ch. E. 105 y. Advanced Unit Operations (10)—Two lectures; three laboratories. Prerequisites, Ch. E. 103 y and Chem. 102 A y.

Advanced theoretical treatment of fluid flow, heat flow, evaporation, humidity, distillation, absorption, scrubbing, and analogous unit operations typical of chemical engineering. Problems and laboratory operation of small scale semi-commercial type of equipment. A comprehensive problem involving theory and laboratory operations is included to illustrate the development of a plant design problem that requires the utilization of a number of the fundamental topics. Laboratory fee, $8.00 per semester.

Ch. E. 106 y. Minor Problems (13)—Prerequisite, completion of third year chemical engineering course or permission of department of chemical engineering. Completion or simultaneous registration in Ch. E. 105 y will ordinarily be required.

Original work on a special problem assigned to each student, including preparation of a complete report covering the study. Laboratory fee, $8.00 per semester.

Ch. E. 107 y. Fuels and Their Utilization (4)—Two lectures. Prerequisite, registration in Ch. E. 103 y or permission of department of chemical engineering.

A study of the sources of solid, liquid, and gaseous fuels, their economic conversion, distribution, and utilization. Problems. (Huff.)

Ch. E. 108 y. Chemical Technology (4)—Two lectures. Prerequisite, registration in Ch. E. 103 y or permission of department of chemical engineering.

A study of the principal chemical industries. Plant inspections, trips, reports, and problems. (Machwart.)

For Graduates

Ch. E. 201 y. Graduate Unit Operations (10 or more).—Prerequisite, permission of department of chemical engineering.

Advanced theoretical treatment of typical unit operations in chemical engineering. Problems. Laboratory operation of small scale semi-commercial type equipment with supplementary reading, conferences, and reports. Laboratory fee, $8.00 per semester.

*Students in Food Technology may meet this prerequisite by offering Phys. 1y.

Ch. E. 202 s. Gas Analysis (3)—One lecture; two laboratories. Prerequisite, permission of department of chemical engineering.

Quantitative determination of common gases, fuel gases, gaseous vapors, and important gaseous impurities. Problems. Laboratory fee, $7.00.

Ch. E. 203 f, 204 s. Graduate Seminar (2)—Required of all graduate students in chemical engineering.

Students prepare reports on current problems in chemical engineering, and participate in the discussion of such reports. (Staff.)

Ch. E. 205. Research in Chemical Engineering.

The investigation of special problems and the preparation of a thesis in partial fulfillment of the requirements of an advanced degree. Laboratory fee, $8.00 per semester. (Staff.)

Ch. E. 207 A f, 208 A s. Plant Design Studies (3, 3)—Three lectures. Prerequisite, permission of department of chemical engineering.

An examination of the fundamentals entering into the selection of processes, the specifications for and choice and location of equipment and plant sites. Problems. (Huff.)

Ch. E. 207 B f, 208 B s. Plant Design Studies Laboratory (2, 2)—Six hours of laboratory work which may be elected to accompany or be preceded by Ch. E. 207 A f, 208 A s. Prerequisite, permission of department of chemical engineering. Laboratory fee, $8.00 per semester. (Machwart.)

Ch. E. 209 y. Gaseous Fuels (4)—Two lectures. Prerequisite, permission of department of chemical engineering.

An advanced treatment of some of the underlying scientific principles involved in the production, transmission and utilization of gaseous fuels. Problem in the design and selection of equipment. (Huff.)

Civil Engineering

For Advanced Undergraduates and Graduates

C. E. 101 s. Hydraulics (4)—Three lectures; one laboratory. Prerequisite, Mech. 101 f. Required of juniors in civil engineering.

Hydrostatic pressures on tanks, dams, and pipes. Flow through orifices, nozzles, pipe lines, open channels, and weirs. Use of Reynold's number. Measurement of water. Elementary hydrodynamics. (Ernst.)

C. E. 102 s. Hydraulics (3)—Two lectures; one laboratory. Prerequisite, Mech. 101 f or 102 f. Required of juniors in electrical and mechanical engineering.

A shorter course than C. E. 101 s, with emphasi on water wheels, turbines, and centrifugal pumps. (Lowe, Sherwood.)

C. E. 103 f. Curves and Earthwork (3)—Two lectures; one laboratory. Prerequisite, Surv. 2 y. Required of juniors in civil engineering.

Computation and field work for simple, compound, and reversed circular curves; transition curves; vertical and horizontal parabolic curves. Analysis of turnouts and computation of earthwork, including haul and mass diagram. Preliminary and final location survey; cross sectioning; and computation of earthwork, including haul and mass diagram. (Allen.)

C. E. 104 s. Theory of Structures (5)—Four lectures; one laboratory. Prerequisite, Mech. 101 f. Required of juniors in civil engineering.

Analytical and graphical determination of dead and live load stresses in framed structures. Influence lines for reactions, shears, moments, and stresses. Analysis of lateral bracing systems. Elements of slope and deflection; rigid frames. (Allen.)

C. E. 105 f. Elements of Highways (3)—Two lectures; one laboratory. Prerequisite, Mech. 101 f. Required of seniors in civil engineering.

Location, design, construction, and maintenance of roads and pavements. Field inspection trips. (Steinberg.)

C. E. 106 y. Concrete Design (7)—Three lectures, one laboratory first semester; two lectures, one laboratory second semester. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A continuation of C. E. 104 s, with special application to the design and detailing of plain and reinforced concrete structures, which include slabs, columns, footings, beam bridges, arches, retaining walls, and dams. Applications of slope-deflection and moment distribution theories and rigid frames. (Allen.)

C. E. 107 y. Structural Design (7)—Three lectures, one laboratory first semester; two lectures, one laboratory second semester. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A continuation of C. E. 104 s, with special application to the design and detailing of structural steel sections, members and their connections, for roof trussses, plate girders, highway and railway bridges, buildings, bracing systems, and grillage foundations. (Allen.)

C. E. 108 y. Municipal Sanitation (6)—Two lectures; one laboratory. Prerequisite, C. E. 101 s. Required of seniors in civil engineering.

Methods of estimating consumption and designing water supply and sewerage systems. (Hall.)

C. E. 109 y. Thesis (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in civil engineering.

The student selects, with faculty approval, a subject in civil engineering design or research. He makes such field or laboratory studies as may be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Steinberg and Staff.)

C. E. 110 s. Soils and Foundations (3)—Two lectures; one laboratory. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

An introductory study of the properties and behavior of soil as an engineering material. Applications to engineering construction. (Lowe.)

For Graduates

C. E. 201 f. Advanced Properties of Materials (3)—Three credits. Prerequisite, Mech. 103 s or equivalent.

A critical study of elastic and plastic properties, flow of materials, resistance to failure by fracture, impact, and corrosion, the theories of failure. Assigned reading from current literature. (Ernst.)

C. E. 202 f. Advanced Strength of Materials (3)—Three credits. Prerequisite, Mech. 101 f or equivalent.

Special problems in engineering stress analysis. Limitations of flexure and torsion formulas, unsymmetrical bending, curved beams, combined stresses, thin tubes, thick-walled cylinders, and flat plates. (Ernst.)

C. E. 203 s. Applied Elasticity (3)—Three credits. Prerequisite, Math. 114 f or equivalent.

Two dimensional elastic problems, general stress-strain analysis in three dimensions, stability of beams, columns, and thin plates. (Ernst.)

C. E. 204 f. Soil Mechanics (3)—Three credits. Prerequisite, C. E. 110 s or equivalent.

A detailed study of the properties of engineering soils. Assigned reading from current literature. (Lowe.)

C. E. 205 s. Advanced Foundations (3)—Three credits. Prerequisite. C. E. 106 y or equivalent.

A detailed study of types of foundations. Design and construction to meet varying soil conditions. (Allen.)

C. E. 206 s. Highway Engineering (3)—Three credits. Prerequisite, C. E. 105 f or equivalent.

An intensive course in the location, design and construction of highways. (Steinberg.)

C. E. 207 y. Theory of Concrete Mixtures (6)—Three credits. Prerequisite, Mech. 103 s or equivalent.

A thorough review of the methods for the design of concrete mixtures, followed by a study of factors affecting the properties of the resulting concrete. This course is intended as a background for work in the field of concrete, concrete aggregates, or reinforced concrete. (Walker, Ernst.)

C. E. 208. Research (2-6)—Credit in accordance with work outlined.

The investigation of special problems and the preparation of a thesis in partial fulfillment of the requirements of an advanced degree. (Staff.)

Drawing

Dr. 1 f. Engineering Drawing (2)—Two laboratories. Required of freshmen in engineering.

Lettering, use of instruments, orthographic projection, technical sketches, dimensioning. Drawing from memory; drawing from description; inking, tracing, blueprinting, isometric and oblique projection and sections.

Dr. 2 f or s. Descriptive Geometry (2)—Two laboratories. Prerequisite, Dr. 1 f. Required of freshmen in engineering.

Orthographic projection as applied to the solution of space problems relating to the point, line, and plane. Intersection of planes with solids; development. Applications to practical problems in engineering drafting.

Dr. 3 f or s. Descriptive Geometry (2)—Two laboratories. Prerequisite, Dr. 2. Required of sophomores in civil, electrical, and mechanical engineering.

Continuation of Dr. 2, including curves, plane and space, generation of surfaces, tangent planes, intersection and development of curved surfaces. Shades, shadows, and perspective. Applications to practical problems in engineering drafting.

Dr. 6 y. Mechanical Drawing (2)—One laboratory. Open to non-engineering students.

Lettering, sketching, and working drawings of machines; including conventions, tracing, isometric and cabinet projections, and blueprinting.

Electrical Engineering

E. E. 1 s. Elements of Electrical Engineering (3)—Two lectures; one laboratory. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in electrical engineering.

Principles involved in flow of direct currents in conductors; current and voltage relations in simple circuits; magnetism and magnetic circuits; electromagnetic induction, dielectric circuits and condensers.

For Advanced Undergraduates

E. E. 101 s. Principles of Electrical Engineering (3)—Two lectures; one laboratory. Prerequisites, Phys. 2 y, Math. 23 y. Required of juniors in civil engineering.

Fundamentals of direct current and alternating current machinery; application of machines for specific duties; operating characteristics of generators, motors, and transformers. (Hodgins.)

E. E. 102 y. Principles of Electrical Engineering (8)—Three lectures; one laboratory. Prerequisite, junior standing. Required of juniors in chemical and mechanical engineering.

Study of elementary direct current and alternating current circuit characteristics. Principles of construction and operation of direct and alternating current machinery. Experiments on the operation and characteristics of generators, motors, transformers, and control equipment. (Creese, Laning.)

E. E. 103 f. Direct Currents (5)—Three lectures; two laboratories. Prerequisites, Phys. 2 y, Math. 23 y, and E. E. 1 s. Required of juniors in electrical engineering.

Construction, theory of operation and performance characteristics of direct current generators, motors, and control apparatus. Principles of construction, characteristics and operation of primary and secondary batteries and control equipment. Experiments on battery characteristics, and the operation and characteristics of direct current generators and motors. (Hodgins.)

E. E. 104 f. Direct Current Design (1)—One laboratory. Prerequisite, taken concurrently with E. E. 103 f. Required of juniors in electrical engineering.

The purpose of this course is to help the student in electrical engineering to acquire a thorough knowledge of the basic principles upon which any design depends. A study is made of design formulas and materials, suitable for direct current machinery, and the reasons for the various standards of practice. The student is required to make all calculations for a direct current generator or motor. (Hodgins.)

E. E. 105 y. Advanced Electricity and Magnetism (8)—Two lectures, two laboratories, first semester; three lectures, one laboratory, second semester. Prerequisites, concurrent registration in E. E. 103 f, 106 s. Required of juniors in electrical engineering.

A study of electric and magnetic fields; of electric and magnetic properties of materials; of solid, liquid and gaseous conduction; and of electrical circuits and measurements. (Laning.)

E. E. 106 s. Alternating Current Circuits (5)—Three lectures; two laboratories. Prerequisites, E. E. 103 f and concurrent registration in E. E. 105 y. Required of juniors in electrical engineering.

Introduction to the theory of alternating current circuits, both single phase and polyphase; methods and apparatus used to measure alternating currents, voltage, and power; current and voltage relations in balanced and unbalanced polyphase systems. (Hodgins.)

E. E. 107 y. Alternating Current Machinery (8)—Three lectures; one laboratory. Prerequisite, E. E. 106 s. Required of seniors in electrical engineering.

Construction, theory of operation and performance characteristics of transformers, alternators, induction motors, synchronous motors, synchronous converters, commutator type motors, and other apparatus; tests and experiments. (Creese, Hodgins.)

E. E. 108 f. Alternating Current Design (1)—One laboratory. Prerequisites, E. E. 104 f and concurrent registration in E. E. 107 y. Required of seniors in electrical engineering.

This course is a continuation of the course in Direct Current Design, E. E. 104 f, and applies the same principles to the design of an alternator and transformer. (Hodgins.)

E. E. 109 y. Electrical Communications (6)—Two lectures; one laboratory. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Principles of wire and radio communication. Theory and calculation of passive networks including transmission lines and coupled circuits. Theory and calculation of non-linear impedances including the vacuum tube. Introduction to electromagnetic wave propagation. (Kear.)

E. E. 110 f. Illumination (3)—Two lectures; one laboratory. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Electric illumination; principles involved in design of lighting systems, illumination calculations, photometric measurements. (Creese.)

E. E. 111 f. Electric Railways (3)—Three lectures. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Mechanism of train motion. Application of electrical equipment to transportation. Construction and operation of control apparatus used in different fields of electrical transportation such as urban railways, trunk line railways, trolley busses and elevators. Power requirements, distribution systems and signal systems. (Hodgins.)

E. E. 112 s. Electric Power Transmission (3)—Three lectures. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

A study of the electrical, mechanical, and economic consideration of power transmission; a survey of central station and substation equipment; and a consideration of the fundamentals of transients. (Laning.)

E. E. 113 s. Engineering Electronics (3)—Two lectures, one laboratory. Prerequisite, E. E. 106 s and concurrent registration in E. E. 107 y.

A review of the properties, emission and utilization of electrons in vacuum, gases, and vapors; a study of the application of electron tubes and their associated circuits to the more common industrial and research problems. (Laning.)

E. E. 114 y. Thesis (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in electrical engineering.

The student selects, with faculty approval, a subject in electrical engineering design or research. He makes such field or laboratory studies as may be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Creese and Staff.)

General Engineering Subjects

Engr. 1 f. Introduction to Engineering (1)—One lecture. Required of freshmen in engineering.

A course of lectures by the faculty and by practicing engineers covering the engineering professional fields. The work of the engineer, its requirements in training and character, and the ethics and ideals of the profession. The purpose of this course is to assist the freshman in selecting the particular field of engineering for which he is best adapted.

For Advanced Undergraduates

Engr. 101 f. Engineering Geology (2)—Two lectures. Required of juniors in civil engineering.

The fundamentals of geology with engineering applications. (Hess.)

Engr. 102 s. Engineering Law and Specifications (2)—Two lectures. Required of seniors in civil, electrical, and mechanical engineering.

A study is made of the fundamental principles of law relating to business and to engineering; including contracts, agency, negotiable instruments, corporations, and common carriers. These principles are then applied to the analysis of general and technical clauses in engineering contracts and specifications. (Steinberg.)

Mechanics

Mech. 1 s. Statics and Dynamics (3)—Three lectures. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in civil and electrical engineering.

Analytical and graphical solutions of coplanar and non-coplanar force systems; equilibrium of rigid bodies; suspended cables, friction, centroids and moments of inertia; kinematics and kinetics; work, power, and energy; impulse and momentum.

Mech. 2 s. Statics and Dynamics (5)—Four lectures; one laboratory. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in mechanical engineering.

Analytical and graphical solution of coplanar and non-coplanar force systems; equilibrium of rigid bodies; suspended cables, friction, centroids and moments of inertia, kinematics and kinetics; work, power, and energy; impulse and momentum.

The course also embraces the fundamentals of kinematics necessary to the study of kinematics of machinery. Plane motion of a particle and the general laws governing the transmission of plane motion are treated by vector and graphical methods.

For Advanced Undergraduates

Mech. 101 f. Strength of Materials (5)—Five lectures. Prerequisite, Mech. 1 s or 2 s. Required of juniors in civil and mechanical engineering.

Riveted joints; torsional stresses and strains; beam stresses and deflection; combined axial and bending loads; column stresses; principal stresses and strains; impact and energy loads; statically indeterminate beams; shear center; unsymmetrical bending; composite members including reinforced concrete beams. Instruction in the use of an approved handbook containing the properties of rolled steel sections. (Younger, Ernst.)

Mech. 102 f. Strength of Materials (4)—Three lectures; one laboratory. Prerequisite, Mech. 1 s or 2 s. Required of juniors in electrical engineering.

A shorter course than Mech. 101 f. Instruction in the use of an approved handbook containing the properties of rolled steel sections. (Ernst.)

Mech. 103 s. Materials of Engineering (2)—One lecture; one laboratory. Prerequisite, Mech. 101 f or Mech. 102 f. Required of juniors in civil, electrical, and mechanical engineering.

The composition, manufacture, and properties of the principal materials used in engineering, and of the conditions that influence their physical characteristics. The interpretation of specifications and of standard tests. Laboratory work in the testing of steel, wrought iron, timber, brick, cement, and concrete. (Pyle.)

Mechanical Engineering

For Advanced Undergraduates

M. E. 101 f. Thermodynamics (3)—Three lectures. Prerequisites, Math. 23 y and Phys. 2 y. Required of seniors in electrical engineering.

The theory and application of thermodynamics to the steam engine, steam turbine, nozzles. The properties of vapors, cycles of heat and entropy, including discussion of machines and their uses. (Green.)

M. E. 102 y. Mechanics of Machinery (4)—One lecture; one laboratory. Prerequisite, Mech. 101 f or registration therein.

A course treating mechanics of machinery and the design of machine members and mechanisms. (Huckert.)

M. E. 103 y. Thermodynamics (4)—Two lectures. Prerequisites, Math. 23 y and Phys. 2 y. Required of juniors in mechanical engineering.

The properties and fundamental equations of gases and vapors. Thermodynamics of heat cycles, air compressors, and steam engines. (Huckert, Sherwood.)

M. E. 104 s. Aerodynamics and Hydrodynamics (3)—Three lectures. Prerequisites, Math. 23 y, Phys. 2. Required of juniors in mechanical engineering, aeronautical option.

A study of the fundamental principles of the flow of air and of water. Applications with special reference to the airplane; airfoil and propeller theory; theory of model testing in wind tunnels; design performance calculations of airplanes. (Younger.)

M. E. 105 f. Heating and Ventilation (3)—Two lectures; one laboratory. Prerequisite, M. E. 103 y. Required of seniors in mechanical engineering.

The study of types of heating and ventilating systems for a particular building; layout of piping and systems, with complete calculations and estimates of costs; fundamentals of air conditioning. (Dill.)

M. E. 106 s. Refrigeration (3)—Two lectures; one laboratory. Prerequisite, M. E. 103 y. Required of seniors in mechanical engineering.

Problems involving the different methods and processes of refrigeration. Air conditioning for offices, buildings, factories and homes. (Dill.)

M. E. 107 y. Thesis (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in mechanical engineering.

The student selects, with faculty approval, a subject in mechanical engineering design or research. He makes such field or laboratory studies as may be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Younger and Staff.)

M. E. 108 y. Prime Movers (8)—Three lectures; one laboratory. Prerequisites, Mech. 101 f, C. E. 102 s. Required of seniors in mechanical engineering.

A course covering the use of prime movers to convert heat into power. It includes a study of heat, fuels and combustion processes followed by the theory, construction and operation of internal combustion engines, steam engines, boilers, condensers, steam turbines and their auxiliary equipment. Theory is supplemented by practical problems and by laboratory tests. The entire course is closely integrated with the Mechanical Laboratory course. (Green.)

M. E. 109 y. Mechanical Engineering Design (7)—Two lectures; two laboratories, first semester; one lecture, two laboratories, second semester. Prerequisite, Mech. 101 f and M. E. 102 y. Required of seniors in mechanical engineering.

A course embracing the kinematics and dynamics of machinery and the design of machine members and mechanisms. Special problems on the balancing, vibration, and critical speeds of machine members are treated. (Huckert.)

M. E. 110 y. Mechanical Laboratory (6)—Three laboratories. Prerequisite, senior standing. Required of seniors in mechanical engineering.

Calibration of instruments, gauges, indicators, steam, gas and water meters. Indicated and brake horsepower of steam and internal combustion engines, setting of valves, tests for economy and capacity of boilers, engines, turbines, pumps, and other prime movers. Feed water heaters and condensers; B. T. U. analysis of solid, gaseous, and liquid fuels, and power plant tests. (Younger and Staff.)

M. E. 111 y. Airplane Structures (6)—Three lectures. Prerequisite, M. E. 104 s. Required of seniors in mechanical engineering, aeronautics option.

The fundamental principles of structural analysis and design of airplanes. The air worthiness requirements of the Civil Aeronautics Authority and the design requirements of the government service branches are given special consideration. (Younger.)

M. E. 112 f. Principles of Mechanical Engineering (3)—Two lectures; one laboratory. Required of juniors in civil engineering. Prerequisites, Math. 23 y and Phys. 2 y.

Elementary thermodynamics and the study of heat, fuel, and combustion in the production and use of steam for the generation of power. Includes study of fundamental types of steam boilers, fuel burning equipment, prime movers, and their allied apparatus. Supplemented by laboratory tests and trips to industrial plants. (Sherwood.)

M. E. 113 s. Power Plants (3)—Two lectures; one laboratory. Required of seniors in electrical engineering. Prerequisite, senior standing.

A study of heat, fuel, and combustion in the production and use of steam for the generation of power. Includes the theory and operation of steam engines, boilers, condensers, steam turbines, and their accessories. Practical power problems as applied to typical power plants, supplemented by laboratory tests and trips to industrial plants. (Green.)

Shop

Shop 1 s. Forge Practice (1)—One combination lecture and laboratory. Required of freshmen in engineering.

Lectures and recitations on the principles of forging and heat treatment of steel. Demonstrations in acetylene and electric welding, brazing, cutting, and case hardening. Laboratory practice in drawing, bending, upsetting, forge welding, hardening, tempering, and thread cutting.

Shop 2 f. Machine Shop Practice (1)—One laboratory. Required of sophomores in electrical engineering.

Practice in bench work, turning, planing, drilling, and pipe threading.

Shop 3 f. Machine Shop Practice (2)—One lecture; one laboratory. Required of sophomores in mechanical engineering.

Study of the fundamental principles of machine tools, such as lathe, planer, shaper, milling machine, drilling machine, and grinding machines. Calculation for cutting threads, spur and helical gears, fluting and cutting speeds and coolants. The laboratory work in this course is identical with Shop 2 f. Practice in bench work, turning, planing, drilling, and pipe threading.

Shop 4 f. Machine Shop Theory (1)—One lecture. Open to non-engineering students.

This course consists of the lecture work only of Shop 3 f, and is scheduled concurrently with Shop 3 f.

Shop 5 s. Machine Shop Practice (2)—Two laboratories. Open to non-engineering students.

Practice in bench work, turning, planing, drilling, pipe threading, thread cutting, surface grinding, and fluting and cutting spur and helical gears.

Shop 6 y. Wood Shop (2)—One laboratory. Open to non-engineering students.

Use and care of wood-working tools and exercises in sawing, planing, turning, finishing, and laying out work from blueprints. (A charge will be made for materials actually used, approximately $2.00 a semester.)

For Advanced Undergraduates

Shop 101 f. Foundry Practice (1)—One combination lecture and laboratory. Required of juniors in mechanical engineering.

Lectures and recitations on foundry products and layouts, materials and equipment, hand and machine moulding, cupola practice and calculating mixes. Core making, moulding, and casting in aluminum. (Hoshall.)

Shop 102 s. Machine Shop Practice (1)—One laboratory. Required of juniors in mechanical engineering.

Advanced practice with standard machine tools. Exercises in thread cutting, surface grinding, fluting, cutting spur and helical gears, and jig work. (Hoshall.)

Surveying

Surv. 1 f and s. Elements of Plane Surveying (1)—Combined lecture and laboratory work. Prerequisites, Math. 21 f, 22 s. Required of sophomores in chemical, electrical, and mechanical engineering.

A brief course in the use of the tape, compass, level, transit, and stadia. Computations for area, coordinates, volume, and plotting.

Surv. 2 y. Plane Surveying (5)—One lecture; one laboratory first semester; one lecture, two laboratories second semester. Prerequisites, Math. 21 f, 22 s. Required of sophomores in civil engineering.

Theory of and practice in the use of the tape, compass, transit, and level. General survey methods, traversing, area, coordinates, profiles, cross-sections, volume, stadia.

For Advanced Undergraduates

Surv. 101 f. Advanced Surveying (4)—Two lectures; two laboratories. Prerequisite, Surv. 2 y. Required of juniors in civil engineering.

Adjustment of instruments, latitude, longitude, azimuth, time, triangulation, precise leveling, geodetic surveying, together with the necessary adjustments and computations. Topographic surveys. Plane table, land surveys, and boundaries. Mine, tunnel, and hydrographic surveys. (Pyle.)

ENGLISH LANGUAGE AND LITERATURE

PROFESSORS HALE, WARFEL; ASSOCIATE PROFESSOR HARMAN; ASSISTANT PROFESSORS LEMON, FITZHUGH, ZEEVELD, BRYAN, COOLEY; MR. MURPHY, MR. BALL,* MISS IDE, MR. SIXBEY,* MR. GRAVELY, MISS MILLER, MR. PEDEN, MR. ROBERTSON, MR. SWEARINGEN, MRS. WARD, MR. WARD, MR. SMITH, DR. WEEKS.

Eng. 1 y. Survey and Composition I (6)—Three lectures. Freshman year. Prerequisite, three units of high school English and successful passing of the qualifying examination given by the Department, or successful completion of English A. Required of all four-year students.

A study of style, syntax, spelling, and punctuation, combined with an historical study of the literature of the nineteenth and twentieth centuries. Written themes, book reviews, and exercises. Each semester of this course will be repeated in the following semester.

Eng. A f. Special Preparatory Course (0)—Three lectures. Freshman year. Prerequisite, three units of high school English. Required of all students who fail to pass the qualifying examination. Students who show sufficient progress after five weeks of English A will be transferred to English 1 y. Others will continue with English A for one semester. The department reserves the right to transfer students who make unsatisfactory progress from English 1 y to English A f.

A course in grammatical and rhetorical principles designed to help students whose preparation has been insufficient for English 1 y. Exercises, conferences, precis writing. This course will be repeated in the second semester.

*Absent on leave.

Eng. 2 f. Survey and Composition II (3)—One general lecture given by various members of the department; two quiz sections. Sophomore year. Prerequisite, Eng. 1 y. Required of all students in the College of Arts and Sciences.

A continuation of work in composition based on the work accomplished in Eng. 1 y. An historical study of English Literature from the beginnings to the nineteenth century. Themes, book reports, conferences.

Eng. 3 s. Survey and Composition II (3)—One lecture; two quiz sections. Prerequisites, Eng. 2 f.

Continuation of Eng 2 f.

Eng. 4 f or s. Business English (2)—Two lectures. Prerequisite, Eng. 1 y. Course complete in one semester, but may be taken in either semester.

This course develops the best methods of writing effective business letters.

Eng. 5 f. Expository Writing (2)—Two lectures. Prerequisite, Eng. 1 y.

Study of the principles of exposition. Analysis and interpretation of material bearing upon scientific matter. Themes, papers, and reports.

Eng. 6 s. Expository Writing (2)—Two lectures. Prerequisite, Eng. 5 f.

Continuation of Eng. 5 f.

Eng. 7 f, 8 s. Survey of American Literature (3, 3)—Three lectures. Prerequisite, Eng. 1 y.

First semester, American thought and expression from 1607 to 1865, with emphasis upon colonial cultural patterns, upon the rise of nationalism, and upon sectional conflict. Reports and term paper.

Second semester, emphasis upon the changing social forces which influenced American writers after 1865. Reports and term paper.

Eng. 11 f, 12 s. Shakespeare (3, 3)—Three lectures. Prerequisite, Eng. 1 y.

First semester, eleven significant early plays, illustrating the drama as a distinct form of art. Dramatic criticisms; preparation of acting script; experimental production.

Second semester, ten significant late plays.

Eng. 13 s. Introduction to Narrative Literature (2)—Two lectures. Prerequisite, Eng. 1 y. Not open to freshmen.

An intensive study of representative stories, with lectures on the history and technique of the short story and of other narrative forms.

Eng. 14 f. College Grammar (3)—Three lectures. Prerequisite, Eng. 1 y. Required of students preparing to teach English.

Studies in the descriptive grammar of modern English.

Drama 1 f. Amateur Play Production (3)—Three lectures.

A basic course for little theatre workers and secondary school teachers of dramatics. Brief survey of the mechanics used in the theatre from early Greek tragedy to contemporary times. Plays of each major period studied with attention to the method of creating theatrical effectiveness. Admission by the permission of the instructor.

Drama 2 s. Amateur Play Production (3)—Three lectures and one laboratory.

Fundamental principles of acting, staging, lighting, and direction of amateur production. Each student will make a production book of one or more plays and engage in practical laboratory work. Admission by the permission of the instructor.

For Advanced Undergraduates and Graduates

Qualified major students who wish to read for honors in English should apply to the chairman of the department. The reading may be done in the last two years, but should, if possible, be begun earlier.

In addition to the twelve hours of basic freshman and sophomore English, a student taking his major work in this department must pass one semester of Advanced Writing, one semester of College Grammar, and one semester of either History of the English Language or Old English. In addition, he must complete one of the schedules below.

a. Major work in general literature (recommended for those preparing to teach English in secondary schools): Introduction to American Literature, Shakespeare, and at least six hours from the following: Milton; Literature of the 18th Century; Prose and Poetry of the Romantic Age; Victorian Literature; Modern and Contemporary British Poets; Emerson, Thoreau, and Whitman; American Fiction; Contemporary American Poetry and Prose.

b. Major work in American literature: Survey of American Literature; Emerson, Thoreau, and Whitman; American Fiction; Contemporary American Poetry and Prose; American Drama.

c. Major work in drama: Shakespeare, and twelve hours from the following: Medieval Drama, Elizabethan Drama, Modern Drama, Contemporary Drama, American Drama, Amateur Play Production, Introduction to Comparative Literature (first semester), The Spanish Drama, The Faust Legend, Ibsen.

d. Major work in English literature: Shakespeare, and at least twelve hours in the department in advanced courses other than American literature.

Minor work may also be elected in these fields, but no major and minor combination of a. and b. or of a. and d. will be permitted.

Eng. 101 s. History of the English Language (3)—Three lectures. Prerequisite, Eng. 14 f.

An historical survey of the English Language: its nature, origin, and development, with special stress upon structural and phonetic changes in English speech and upon the rules which govern modern usage. (Harman.)

Eng. 102 f. Old English (3)—Three lectures. Prerequisite, Eng. 14 f.

A study of Old English grammar and literature. Lectures on the principles of phonetics and comparative philology. (Ball.)

Eng. 103 s. Beowulf (3)—Three lectures. Prerequisite, Eng. 102 f.

A study of the Old English epic in the original. (Ball.)

Eng. 104 f. Chaucer (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the *Canterbury Tales*, *Troilus and Criseyde*, and the principal minor poems, with lectures and readings on the social background of Chaucer's time. (Not given in 1940-41.) (Hale.)

Eng. 105 f. Medieval Drama in England (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the development of medieval English drama from its beginning to 1540. Class discussion of significant plays, outside reading, reports. (Not given in 1940-41.) (Fitzhugh.)

Eng. 106 s. Elizabethan Drama (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the change in spirit and form of English drama from 1540 to 1640, as seen in the works of the important dramatists other than Shakespeare. Class discussion of significant plays, outside reading, written dramatic criticisms. (Not given in 1940-41.) (Zeeveld.)

Eng. 107 s. Renaissance Poetry and Prose (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the literary manifestations of humanism and the new national spirit in sixteenth-century England, with emphasis on the prose works of More, Lyly, Sidney, Hooker, Bacon, and the translators of the Bible, and on the poetry of Spenser. (Zeeveld.)

Eng. 108 f. Milton (2)—Two lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the poetry and the chief prose works. (Murphy.)

Eng. 109 f. Literature of the Seventeenth Century to 1660 (2)—Two lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the chief prose writers and of the Metaphysical and Cavalier traditions in poetry. (Not given in 1940-41.) (Murphy.)

Eng. 110 f. The Age of Dryden (2)—Two lectures. Prerequisites, Eng. 1 y, Eng. 2 f and 3 s.

This course emphasizes the relation of literature to the philosophical movements of the age. (Murphy.)

Eng. 111 f, 112 s. Literature of the Eighteenth Century (2, 2)—Two lectures. Prerequisites, Eng. 2 f and 3 s.

First semester, readings in the period dominated by Defoe, Swift, Addison, Steele, and Pope.

Second semester, Dr. Johnson and his Circle; the Rise of Romanticism; the Letter Writers. (Not given in 1940-41.) (Fitzhugh.)

Eng. 113 f, 114 s. Prose and Poetry of the Romantic Age (3, 3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f, 3 s.

First semester, a study of the development of the Romantic movement in England as exemplified by the prose and poetry of Wordsworth, Coleridge, Lamb, De Quincey, Landor, and others.

Second semester, a study of the later Romantic writers, including Byron, Shelley, Keats, Moore, Scott, and others. (Hale.)

Eng. 115 f. Scottish Poetry (2)—Two lectures. Prerequisites, Eng. 2 f and 3 s. No knowledge of the Scottish dialect required.

Readings in the Scottish Chaucerians; Drummond of Hawthornden; song and ballad literature; poets of the vernacular revival: Ramsay, Ferguson, and Burns. Papers and reporrts. (Not given in 1940-41.) (Fitzhugh.)

Eng. 116 f, 117 s. Victorian Prose and Poetry (3, 3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the chief English authors of the Nineteenth Century from the close of the Romantic Period. (Cooley.)

Eng. 118 s. Modern and Contemporary British Poets (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the chief English and Irish poets of the Twentieth Century. (Murphy.)

Eng. 120 f, 121 s. The History and Development of the Novel in England (3, 3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the origin and development of the novel as a form in England. (Ide.)

Eng. 123 f. Modern Drama (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A survey of English drama during the two centuries from 1660 to 1860. Class discussion of significant plays, outside reading, reports. (Not given in 1940-41.) (Fitzhugh.)

Eng. 124 s. Contemporary Drama (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of significant European and American dramatists from Ibsen to O'Neill. Class discussion of significant plays, outside reading, reports. (Not given in 1940-41.) (Fitzhugh.)

Eng. 125 f. Emerson, Thoreau, and Whitman (3)—Three lectures. Prerequisites, Eng. 7 f, 8 s.

A study of the major writings of Emerson, Thoreau, and Whitman, with emphasis on transcendentalism, idealism, and democracy. (Not given in 1940-1941.) (Warfel.)

Eng. 126 s. American Fiction (3)—Three lectures. Prerequisites, Eng. 7 f, 8 s.

Historical and critical study of the short story and novel in the United States from 1789 to 1920. (Not given in 1940-1941.) (Warfel.)

Eng. 127 f. Contemporary American Poetry and Prose (3)—Three lectures. Prerequisites, Eng. 7 f, 8 s.

Tendencies and forms in non-dramatic literature since 1920. (Warfel.)

Eng. 128 s. American Drama (3)—Three lectures. Prerequisites, Eng. 7 f, 8 s.

Historical study of representative American plays and playwrights from 1787 to 1920. (Warfel.)

Eng. 135 f. Introduction to Creative Writing (2)—Two lectures. Prerequisites, Eng. 2 f and 3 s.

Theory and practice in the short story and lyric, with some study of the novelette and play at the election of the class. Major students in English must elect either this course or Eng. 136 s. (Bryan.)

Eng. 136 s. Magazine Writing (2)—Two lectures. Prerequisites, Eng. 2 f and 3 s.

The production and marketing of such literary forms as the magazine article, the personal essay, the biographical essay, and the book review. (Bryan.)

Eng. 137 s. Advanced Creative Writing (2)—Two lectures. Prerequisite, Eng. 135 f or 136 s; open to other advanced students by permission of the instructor after submission of an original composition.

Study and exercise in original literary expression as an interpretative art. (Bryan.)

For Graduates

Requirements for Advanced Degrees with Major in English (in addition to the general requirements of the Graduate School):

Master of Arts

Candidates for the degree of Master of Arts in the Department of English must demonstrate a reading knowledge of French or German at the time of admission or not later than six months before taking the degree.

In the thesis, the candidate will be expected to demonstrate his ability to use the ordinary methods of research in the discovery of knowledge and to organize and present his findings in a clear, effective English style.

The final examination will be based in part upon the courses pursued and in part upon first-hand knowledge of all the literary works included in the departmental list of readings for the Master's degree. The examination will test the candidate's powers of analysis and criticism.

Major work in the department may be elected in any of the following fields, the requirements of which are listed below.

a. Major work in English literature: Old English, and at least six hours from seminar courses in Medieval Romance, the Elizabethan period, the Eighteenth Century, The Romantic period, the Victorian period.

b. Major work in American literature: the seminar in American literature, and at least six hours from the advanced undergraduate courses in American literature.

c. Major work in drama: History of the Theatre, and at least six hours from the following: Introduction to Comparative Literature (first semester), Medieval Drama, Elizabethan Drama, Modern Drama, Contemporary Drama, American Drama, The Faust Legend, The Modern German Drama, Spanish Drama, Ibsen.

d. Major work in philology: Old English, Beowulf, Seminar in Old English Poetry, Middle English, Gothic, and either Medieval Romance or Chaucer.

e. General major (designed chiefly for teachers in secondary schools): Old English, and at least six hours from the following groups: Elizabethan Drama, or an Elizabethan seminar; Milton; the Eighteenth Century, either undergraduate or seminar; Prose and Poetry of the Romantic Age or Seminar in the Romantic Period, Contemporary American Prose and Poetry or the American seminar; Victorian Prose and Poetry or Seminar in the Victorian Period.

Minor work may also be elected in these fields, but no major and minor combination of a. and e. will be permitted.

Doctor of Philosophy

In addition to the requirements of the Graduate School, each candidate must have the following courses:

a. Three credit hours in Comparative Literature.

b. Six credit hours in Old English, English 102 f, 103 s, and 212 s.

c. Four credit hours in the Middle English Language (Eng. 202 f) and Gothic (Eng. 203 s).

Candidates must pass a comprehensive written examination, preferably one year before they expect to be awarded degrees. This examination will include linguistics (morphology and phonology) and each of the major literary fields, from which the candidate may select two for particularly detailed examination, specifically: Old English, Middle English, the Drama, the Sixteenth and Seventeenth Centuries, the Eighteenth Century, the Nineteenth Century, American Literature.

Eng. 200 f or s. Seminar in Special Studies (1-3). Credit proportioned to the importance of the problems assigned. Work under personal guidance in some problem of especial interest to the graduate student, but not connected with the thesis. (Staff.)

Eng. 201. Research (2-4)—Credit proportioned to the amount of work and ends accomplished. Original research and the preparation of dissertations for the doctor's degree. (Staff.)

Eng. 202 f. Middle English Language (2-3)—Two lectures. Prerequisites, Eng. 102 f and 103 s.

A study of readings of the Middle English period, with reference to etymology and syntax. (Harman.)

Eng. 203 s. Gothic (2)—Two lectures. Prerequisite, Eng. 102 f.

A study of the forms and syntax, with readings from the Ulfilas Bible. Correlation of Gothic speech sounds with those of Old English. (Harman.)

Eng. 204 y. Medieval Romance in England (4)—Two lectures.

Lectures and readings in the cyclical and non-cyclical romances in Medieval England, and their sources, including translations from the Old French. (Not given in 1939-40.) (Hale.)

Eng. 205 s. Seminar in Sixteenth Century Literature (2-3)—Two lectures.

Studies and problems in sixteenth-century literature other than Shakespeare. (Zeeveld.)

Eng. 207 f. Seminar in Shakespeare (2-3)—Two lectures. Prerequisites, Eng. 11 f, 12 s, or equivalents.

Studies and problems in Shakespeare. (Zeeveld.)

Eng. 208 s. Seminar in Eighteenth Century Literature (2-3)—Two lectures.

Intensive study of one man's work or of one important movement of the century. (Fitzhugh.)

Eng. 209 y. Seminar in American Literature (4-6)—Two lectures.

Critical and biographical problems in nineteenth century American Literature. The subject for 1940-41 will be the major writings of Emerson and Whitman. (Warfel.)

Eng. 210 f. Seminar in the Romantic Period (2-3)—Two or three lectures. Prerequisites, Eng. 113 f and 114 s, or an equivalent satisfactory to the instructor. One discussion period of two hours.

Special studies of problems or persons associated with the Romantic movement. The subject-matter of the course will vary with the interests of the class. (Hale.)

Eng. 211 y. Seminar in the Victorian Period (4-6)—Two or three lectures. Prerequisites, Eng. 116 f and 117 s, or the permission of the instructor.

Special studies of problems or persons in the Victorian Age. The subject-matter of the course will vary with the interests of the class. (Cooley.)

Eng. 212 s. Old English Poetry (2-3)—Two or three lectures. Prerequisite, Eng. 102 f or equivalent.

A study of Old English poetic masterpieces other than the Beowulf. (Ball.)

ENTOMOLOGY

PROFESSOR CORY; LECTURERS SNODGRASS, YEAGER; ASSISTANT PROFESSOR KNIGHT; DR. DITMAN, DR. LANGFORD, MR. MCCONNELL, MR. ABRAMS, MR. BICKLEY.

Ent. 1 f and s. Introductory Entomology (3)—Two lectures; one laboratory. Prerequisite, 1 year college biology.

The relationships of insects to the activities of mankind; the general principles of insect morphology, classification, adaptation; elementary principles of economic entomology. Field work and the preparation of a collection of representative insects of Maryland. Laboratory fee, $3.00.

Ent. 2 s. Insect Morphology (3)—One lecture; two laboratories. Prerequisite, Ent. 1.

A study of the anatomy of insects, given especially in preparation for work in insect taxonomy and biology. Laboratory fee, $2.00.

Ent. 3 f. Insect Taxonomy (3)—One lecture; two laboratories. Prerequisite, Ent. 2 s.

The general principles of taxonomy. An intensive study of the classification of all orders of insects and the principal families in the major groups. The preparation of a collection of insects is a major portion of the course. Laboratory fee, $2.00.

Ent. 4 f. Beekeeping (2).—One lecture; one laboratory. Prerequisite, Zool. 1.

History of beekeeping, natural history and behavior of the honeybee. A study of the beekeeping industry. A non-technical course intended to acquaint the student with the honeybee as an object of biological and cultural interest, and to serve as an introduction to the science of apiculture.

Ent. 5 s. Insect Biology (3)—Two lectures; one laboratory. Prerequisite, Ent. 1.

A continuation of some of the general aspects of entomology begun in Ent. 1, with emphasis upon the adaptations, behavior, inter-relationships, and ecology of insects.

Ent. 6 f.—Apiculture (3)—Two lectures; one laboratory. Prerequisite, Ent. 1.

A study of the life history, yearly cycle, behavior, and activities of the honeybee. The value of honeybees as pollenizers of economic plants and as producers of honey and wax. Designed to be of value to the student of agriculture, horticulture, entomology, and zoology.

Ent. 7 s. Apiculture (3)—Two lectures; one laboratory. Prerequisite, Ent. 6 f.

Theory and practice of apiary management. Designed for the student who wishes to keep bees or desires a knowledge of practical apiary management.

Ent. 8 f, 9 s. Entomological Technic and Scientific Delineation (2, 2)—Two laboratories. Prerequisite, Ent. 1.

Collecting, rearing, preserving, and mounting of insects. The preparation of exhibits, materials for instruction, entomological records and publication. Methods of illustrating, including drawing, photography, lantern slide making, and projection. Laboratory fee, $2.00 per semester. (Not offered in 1940-41.)

For Advanced Undergraduates and Graduates

Ent. 101 y. Economic Entomology (4)—Two lectures.

An intensive study of the problems of applied entomology, including life history, ecology, behavior, distribution, parasitism, and control. (Cory.)

Ent. 102 y. Economic Entomology (4)—Two laboratories.

Expansion of Ent. 101 y to include laboratory and field work in economic entomology. (Not given in 1940-41.) (Cory.)

Ent. 103 f, 104 s. Insect Pests of Special Groups (3, 3)—Two lectures; one laboratory. Prerequisite, Ent. 1.

A study of the principal insects of one or more of the following groups, founded upon food preferences and habitat. The course is intended to give the general student a comprehensive view of the insects that are of importance in his major field of interest and detailed information to the student specializing in entomology.

Insect Pests of 1. Fruit. 2. Vegetables. 3. Flowers, both in the open and under glass. 4. Ornamentals and Shade Trees. 5. Forests. 6. Field Crops. 7. Stored Products. 8. Live Stock. 9. The Household. Laboratory fee, $2.00 per semester. (Not offered in 1940-41.) (Cory.)

Ent. 105 f. Medical Entomology (2)—Two lectures. Prerequisite, Ent. 1, and consent of instructor.

The relation of insects to diseases of man, directly and as carriers of pathogenic organisms. Control of pests of man. The fundamentals of parasitology. (Knight.)

Ent. 106 s. Insect Taxonomy (3)—Two lectures; one laboratory.

An advanced course dealing with the principles and practices underlying modern systematic entomology. (Not offered in 1940-41.)

Ent. 107 s. Theory of Insecticides (3)—Three lectures.

The development and use of contact and stomach poisons, with regard to their chemistry, toxic action, compatibility, and foliage injury. Recent work with insecticides will be especially emphasized. Laboratory fee, $2.00. (Ditman.)

Ent. 109 s. Insect Physiology (2)—Two lectures; occasional demonstrations. Enrollment subject to consent of instructor.

The functioning of the insect body with particular reference to blood, circulation, digestion, absorption, excretion, respiration, reflex action and the nervous system, and metabolism. (Yeager.)

Ent. 110 f and s. Special Problems. Credit and prerequisite to be determined by the staff.

The intensive investigation of some entomological subject. A report of the results is submitted as part of the requirements for graduation. (Staff.)

Ent. 111 s. Coccidology (2)—Two laboratories.

A study of morphology, taxonomy, and biology of the higher groups of the scale insects. The technic of preparation and microscopy are emphasized. Laboratory studies are supplemented by occasional lectures. Laboratory fee, $2.00. (McConnell.)

Ent. 112 y. Seminar (2).

Presentation of original work, book reviews, and abstracts of the more important literature. (Cory, Knight.)

For Graduates

Ent. 201 y. Advanced Entomology (1-3)—One lecture; laboratory by arrangement.

Studies of minor problems in morphology, taxonomy, and applied entomology, with particular reference to preparation for individual research. (Cory.)

Ent. 202. Research in Entomology.

Advanced students having sufficient preparation, with the approval of the head of the department, may undertake supervised research in morphology, taxonomy, or biology and control of insects. Frequently the student may be allowed to work on Station or State Horticultural Department projects. The student's work may form a part of the final report on the project and

be published in bulletin form. A dissertation suitable for publication must be submitted at the close of the studies as a part of the requirements for an advanced degree. (Cory.)

Ent. 203 f. Insect Morphology (2-4)—Two lectures; laboratory work by special arrangement, to suit individual needs.

Insect anatomy with special relation to function. Given particularly in preparation for work in physiology and other advanced studies. (Snodgrass.)

Ent. 204 y. Economic Entomology (6)—Three lectures.

Studies of the principles underlying applied entomology, and the most significant advances in all phases of entomology. (Cory.)

Ent. 205 s. Insect Ecology (2).—One lecture; one laboratory.

A study of the fundamental factors involved in the relationship of insects to their environment. Emphasis is placed on the insect as a dynamic organism adjusted to the environment. (Langford.)

FARM FORESTRY

PROFESSOR BESLEY.

For. 1 s. Introduction to Forestry (3)—Two lectures; one laboratory. Prerequisite, Bot. 1 f and 3 s.

A general survey of the field of forestry. Principles of forestry applied to the establishment care, and protection of stands of timber. Identification and distribution of commercially important trees.

For Advanced Undergraduates

For. 101 s. Farm Forestry (2)—Two lectures. Prerequisite, Bot. 1 f.

A study of the principles and practices involved in managing woodlands on the farm. The course covers briefly the identification of trees; forest protection; management, measurement, and utilization of forest crops; nursery practice; and tree planting. (Besley.)

GENETICS

PROFESSOR KEMP.

For Advanced Undergraduates and Graduates

Gen. 101 f. Genetics (3)—Three lectures.

A general course designed to give an insight into the principles of genetics, or of heredity, and also to prepare students for later courses in the breeding of animals or of plants. (Kemp.)

Gen. 102 s. Advanced Genetics (2)—Two lectures. Prerequisite, Gen. 101 f.

A consideration of chromosome irregularities and other mutations, interspecies crosses, identity and nature of the gene, genetic equilibrium, statistical significance of genetic phenomena. (Kemp.)

For Graduates

Gen. 201 f and s. Plant Breeding. Credit according to work done. (Kemp.)

GEOLOGY

PROFESSOR ————.

Geol. 1 f. Geology (3)—Two lectures; one laboratory. Prerequisite, Chem. 1 y.

A textbook, lecture, and laboratory course, dealing with the principles of geology and their application to agriculture. While this course is designed primarily for agriculture students in preparation for technical courses, it may also be taken as part of a liberal education.

HISTORY

PROFESSORS BAKER-CROTHERS, STRAKHOVSKY; ASSOCIATE PROFESSOR HIGHBY; ASSISTANT PROFESSOR THATCHER; MR. SILVER, DR. PRANGE, DR. DOZER, MR. WORTHINGTON.

H. 1 y. A Survey of Western Civilization (6)—One lecture and two recitations. This course is for freshmen and sophomores; it is open to juniors and seniors with the permission of the instructor but with reduced credit.

A general course covering the broad movements of European History which contributed to the formation of modern institutions. The aim of the course is to make the student cognizant of the present trends in this changing world.

H. 2 y. American History (6)—One lecture and two recitations. This course is open to sophomores and upper classmen.

This course treats American History from the discovery of the New World to the present time.

H. 3 y. History of England and Great Britain (6)—One lecture and two recitations. This course is open to freshmen and sophomores and to upper classmen only with the permission of the instructor, but with reduced credit.

The course is a survey of the evolution of England and Great Britain from earliest times to the World War.

For Advanced Undergraduates and Graduates

In addition to the requirements of the University and the College of Arts and Sciences, the History Department requires that all credits for a major and at least 12 credits for a minor be acquired in courses offered for advanced undergraduates or graduates. History majors must also take two of the three fundamental courses (H. 1 y, H. 2 y, H. 3 y).

H. 101 y. American Colonial History (6)—Three lectures. Prerequisite, H. 2 y.

A study of the political, economic, and social development of the American people from the discovery of America through the formation of the constitution. (Baker-Crothers.)

H. 105 f, 106 s. History of the United States, 1789-1865 (2, 2)—Two lectures. Prerequisite, H. 2 y.

The history of national development to the end of the Civil War. (Thatcher.)

H. 107 f. The United States from the Civil War to 1900 (3)—Three lectures. Prerequisite, H. 2 y, or its equivalent.

Selected topics intended to provide a historical basis for an understanding of problems of the present century. (Thatcher.)

H. 108 s. The United States in the 20th Century (3)—Three lectures. Prerequisite, H. 2 y, or its equivalent.

A historical study of the more important problems of the present century. (Thatcher.)

H. 111 f, 112 s. Social and Economic History of the United States (3, 3)—Three lectures. Prerequisite, H. 2 y, or its equivalent.

First semester, an advanced course giving a synthesis of American life.

Second semester, the period from 1790 to 1860 is covered. (Baker-Crothers.)

H. 115 y. Constitutional History of the United States (6)—Three lectures. Prerequisite, H. 2 y.

A study of the historical forces resulting in the formation of the constitution, and of the development of American constitutionalism in theory and practice thereafter. (Thatcher.)

H. 119 f, 120 s. Diplomatic History of the United States (2, 2)—Two lectures. Prerequisite, H. 2 y.

A study of American foreign policy. (Dozer.)

H. 123 f, 124 s. History of Maryland (2, 2)—Two lectures. Prerequisite, H. 2 y.

A survey of the political, social, and economic progress of Maryland as colony and state. (Dozer.)

H. 125 f, 126 s. The Constitutional History of England (3, 3)—Three lectures and periodic reviews.

This course traces the historical development of English political institutions since the Germanic invasion. (Not given in 1940-41.) (Silver.)

H. 127 f, 128 s. Latin American History (2, 2)—Two lectures. Prerequisite, H. 1 y or H. 2 y.

First semester, a survey of the history of Latin American states through the colonial period to the wars of independence.

Second semester, a survey of the history of the Latin American states from the wars of independence to the present with special emphasis upon Argentine, Brazil, Chile, and Mexico and upon their relations with the United States. (Not given in 1940-41.) (Dozer.)

H. 131 f, 132 s. Ancient History (3, 3)—Three lectures.

A general survey course—the Near East, Greece and Rome. (Highby.)

H. 135 f. Medieval History (3)—Three lectures. Prerequisite, H. 1 y.

A general survey of the Medieval period with special emphasis on the legacy of the Middle Ages. (Prange.)

H. 136 s. Renaissance and Reformation (3)—Three lectures. Prerequisite, H. 1 y.

A general survey of the Renaissance and Reformation. (Prange.)

H. 137 f. Seventeenth and Eighteenth Century Europe (2)—Two lectures. Prerequisite, H. 1 y.

A study of the political, economic, social and intellectual ferment of the "Age of Reason." (Silver.)

H. 138 s. Revolutionary and Napoleonic Europe (2)—Two lectures. Prerequisite, H. 1 y.

A study of the French Revolution and the relation of Revolutionary France with the rest of Europe, 1789-1815. (Silver.)

H. 139 f. Europe Since 1815 (2)—Two lectures and assignments. Prerequisite, H. 1 y.

A study of the political, economic, social and cultural development of Europe up to the World War. (Not given in 1940-41.) (Strakhovsky.)

H. 140 s. Present Day Europe (2)—Two lectures and assignments. Prerequisite, H. 1 y.

This course is a continuation of H. 139 f. (Not given in 1940-41.) (Strakhovsky.)

H. 145 f, 146 s. Expansion of Europe (3, 3)—Three lectures. Prerequisite, H. 1 y or H. 3 y.

A treatment of European History from the Crusades to the present, emphasizing especially the expansion of national states. (Not given in 1940-41.) (Silver.)

H. 151 f, 152 s. Diplomatic History of Europe Since 1871 (2, 2)—Two lectures and assignments. Prerequisite, H. 1 y.

A study of European alliances and alignments, power politics and imperialism up to the present. (Strakhovsky.)

H. 155 f, 156 s. History of Central Europe (3, 3)—Three lectures. Prerequisite, H. 1 y.

A history of Central Europe from the Reformation to the present. Special emphasis will be placed on Germany, Austria and France. (Not given in 1940-41.) (Prange.)

For Graduates

(See Graduate School Catalogue for special departmental requirements.)

H. 200. Research (2-4)—Credit proportioned to the amount of work. (Staff.)

H. 201 y. Seminar in American Colonial History (4)—Conferences and reports on related topics. (Baker-Crothers.)

H. 202 f. American Historical Bibliography and Criticism (2)—(Not given in 1940-41.) (Staff.)

H. 203 s. European Historical Bibliography and Criticism (2)—(Not given in 1940-41.) (Staff.)

H. 204 y. Seminar in European History (4)—Round-table discussions and reports on specified topics. (Not given in 1940-41.) (Strakhovsky.)

H. 205 y. Russia—U. S. S. R. (4)—Lectures, round-table discussions and reports. (Strakhovsky.)

HOME ECONOMICS

PROFESSORS MOUNT, MCFARLAND, WELSH; ASSISTANT PROFESSORS CURTISS, KIRKPATRICK, MOORE; MISS ENRIGHT, MISS BURNETTE, MRS. HINTZ, MRS. HAMILTON.

Home Economics Lectures

H. E. 1 y. Home Economics Lectures (2)—One recitation. Required of Home Economics freshmen.

Lectures, demonstrations, group and individual discussions on grooming, personality development, personal adjustments, health, and social usage.

Textiles, Clothing, and Art

H. E. 11 s. Clothing (3)—Three laboratories. Prerequisite, H. E. 24 f or equivalent.

Use of commercial patterns; construction of 3 garments according to modern methods; study of clothing expenditures for clothing. Laboratory fee, $2.50.

H. E. 21 f and s. Design (3)—One recitation; two laboratories.

Elements of design; application of design principles to daily living; practice in designing. Laboratory fee, $1.00.

H. E. 24 f. Costume design (3)—One recitation; two laboratories. Prerequisite, H. E. 21 or equivalent.

A study of fundamentals underlying taste, fashion, and design as they relate to the expression of individuality in dress. Laboratory fee, $1.00.

H. E. 25 s. Crafts (2)—Two laboratories.

Creative art expressed in clay modeling, plastic carving, metal working, paper mache modeling, etc. Emphasis laid upon inexpensive materials and tools and simple technic. Laboratory fee, $3.00.

H. E. 71 f and s. Textiles (3)—Two recitations; one laboratory.

History of textile fibers, their source, production, manufacture, characteristics, identification, and use. Collection and analysis of new materials; regulations governing standardization; selection of men's, women's, and children's ready-to-wear garments; care, cleaning, and storage of clothing and furs. Laboratory fee, $2.00 per semester.

For Advanced Undergraduates and Graduates

H. E. 111 f. Advanced Clothing (3)—Three laboratories. Prerequisites, H. E. 11 s and 24 f, or equivalent.

Draping of garments in cloth on dress form, stressing style, design, and suitability to the individual. Laboratory fee, $3.00.
(McFarland, Curtiss.)

H. E. 112 s. Problems in Clothing (3)—Three laboratories. Prerequisites, H. E. 11 f and 111 f.

Clothing renovation, clothing for children, and an individual clothing project. Laboratory fee, $3.00.
(Moore.)

H. E. 171 s. Advanced Textiles (3)—One recitation; two laboratories. Prerequisite, H. E. 71 f.

The study of the production of textile fibers; the manufacture of fabrics and their relationship to the consumer; textile microscopy; reports on assigned readings in current literature on textiles. Laboratory fee, $3.00.
(Moore.)

H. E. 172 f. Problems in Textiles (4)—One recitation; three laboratories. Prerequisite, H. E. 171 f.

Testing and experimental work in textiles. Laboratory fee, $3.00.
(Moore.)

*Art

H. E. 121 f, 122 s. Interior Decoration (3, 3)—First semester, one recitation, two laboratories; second semester, three laboratories. Prerequisite, H. E. 21 or equivalent.

Study of traditional styles and design principles with relation to personalities in home planning and furnishing; trips to historic buildings; special merchandise lectures showing what the market provides. In second semester floor plans and wall elevations drawn to scale. Laboratory fees, first semester, $2.00; second semester, $1.00.
(Curtiss.)

*For other courses in Art see page 251.

H. E. 123 f, 124 s. Advanced Design (3, 3)—Three laboratories. Prerequisites, H. E. 122 s and 111 f, or equivalent.

Professional aspects of costume or interior design; contact with commercial establishments. Design expressed in various mediums. Students may choose one of the two fields listed.

(a) *Advanced Costume Design*—Designing of costumes on paper and in cloth; a study of garment merchandising including fashion illustration, shop display, and other phases of promotional work.

(b) *Interior Design*—Designing of rooms, including interior architecture, furniture, fabrics, accessories; arrangement of display rooms in stores. Elevation and perspective drawing to scale. Laboratory fee, $3.00 per semester.
(Curtiss.)

H. E. 125 s. Merchandise Display (2)—Two laboratories. Prerequisite, Design H. E. 21 or equivalent.

Practice in effective display of merchandise for windows, show cases, and other parts of store interiors. Cooperation with retail establishments. Five large display windows in the home economics building provide practical demonstration space for this course. Laboratory fee, $3.00.
(Curtiss.)

Foods and Nutrition

H. E. 31 y. Foods (6)—One recitation; two laboratories. Prerequisite, Chem. 1 y.

Composition, selection, and preparation of food, with a study of the scientific principles involved; analysis of recipes and study of standard products. Laboratory fee, $7.00 per semester.
(Kirkpatrick, Enright, Burnette.)

H. E. 32 f. Elements of Nutrition (3)—Three recitations.

A study of normal nutritional needs; the relation of food to health; planning of adequate dietaries for adults. (Welsh.)

For Advanced Undergraduates and Graduates

H. E. 131 f. Nutrition (3)—Three recitations. Prerequisites, H. E. 31 y, Chem. 12 A y.

A scientific study of principles of human nutrition. (Welsh.)

H. E. 132 s. Dietetics (3)—Two recitations; one laboratory. Prerequisite, H. E. 131 f.

A study of food selection for health; planning and calculating dietaries for adults and children. Laboratory fee, $2.00. (Welsh.)

H. E. 133 f and s. Demonstrations (2)—Two laboratories. Prerequisites, H. E. 11 s, 31 y and 71 f.

Practice in demonstrations. Laboratory fee, $7.00. (Welsh, Enright.)

H. E. 134 f and s. Advanced Foods (3)—One recitation; two laboratories. Prerequisite, H. E. 31 y. Laboratory fee, $7.00.

Advanced study of manipulation of food materials. (Welsh.)

H. E. 135 f and s. Experimental Foods (4)—Two recitations; two laboratories. Prerequisites, H. E. 31 y and 137 s, Chem. 12 A y.

A study of food preparation processes from experimental viewpoint. Practice in technics. Laboratory fee, $7.00. (Kirkpatrick.)

H. E. 136 s. Child Nutrition (3)—Two recitations; one laboratory. Prerequisite, H. E. 32 f or 131 f.

Principles of human nutrition applied to growth and development of children, including experience with children in the nursery school; in children's hospitals and clinics. (Welsh.)

H. E. 137 f and s. Food Buying and Meal Service (3)—One recitation; two laboratories. Prerequisite H. E. 31 y.

Study of problems in food buying; planning and service of meals for the family group, including simple entertaining in relation to nutritional needs and cost. Laboratory fee, $7.00. (Kirkpatrick, Enright, Burnette.)

H. E. 138 s. Diet in Disease (3)—One recitation; two laboratories. Prerequisite, H. E. 131 f.

Modification of the principles of human nutrition to meet dietary needs of certain diseases. Laboratory fee, $3.00. (Enright.)

For Graduates

H. E. 201 f or s. Seminar in Nutrition (2).

Oral and written reports on current literature on nutrition. (Welsh.)

H. E. 202. Research—Credit to be determined by amount and quality of work done.

With the approval of the head of the department, the student may pursue an original investigation in some phase of foods. The result may form the basis of a thesis for an advanced degree. (Welsh.)

H. E. 203 f or s. Advanced Experimental Foods (3)—One recitation; two laboratories.

Individual experimental problems. Special emphasis on use of Maryland products. Laboratory fee, $7.00. (Kirkpatrick.)

H. E. 204 f. Readings in Nutrition (2)—Two recitations.

Reports and discussions of outstanding nutritional research and investigations. (Welsh.)

H. E. 205 f or s. Nutrition (3)—One recitation; laboratory by arrangement.

Feeding experiments are conducted on laboratory animals to show effects of diets of varying compositions. (Welsh.)

Home and Institution Management

For Advanced Undergraduates

H. E. 141 f, 142 s. Management of the Home (3, 3)—Two lectures; one laboratory. Junior standing, College of Home Economics.

The family and human relations; household organization and management; budgeting of time and money. Housing as a social problem; federal and civic housing projects; housing standards for the family; building and financing a home. Selection and care of household equipment and furnishings. (Welsh.)

H. E. 143 f or s. Practice in Management of the Home (3)—Prerequisites, H. E. 141 f and 142 s.

Experience in operating and managing a household composed of a member of the faculty and a small group of students for approximately one-third of a semester. Laboratory fee, $4.00. (Enright.)

H. E. 144 y. Institution Management (6)—Three recitations. Prerequisites, H. E. 31 y, 141 f, 142 s and 131 f. The last three may be taken concurrently.

The organization and management of food service in hospitals, clubs, schools, cafeterias, and restaurants; management of room service in dormitories; organization of institution laundries. Institutional accounting and purchasing of supplies, furnishings and equipment. (Mount.)

H. E. 145 f. Practice in Institution Management (3)—Prerequisite, H. E. 144 y.

Practice work in one of the following: the University dining hall, a tea room, hospital, cafeteria, or hotel. This must be done under direction for not less than six weeks full time. (Staff.)

H. E. 146 s. Advanced Institution Management (3)—Prerequisite, H. E. 144 y. One recitation weekly and individual conferences with the instructor.

Special problems in institution management. (Hamilton.)

H. E. 147 f. Institution Cookery (3)—One recitation; two laboratories. Prerequisites, H. E. 31 y, 137 s and 144 y.

Application of principles of food preparation to large quantity cookery; study of standard technics; menu planning and costs; standardization of recipes; use of institutional equipment; practice in cafeteria counter service. Laboratory fee, $7.00. (Hamilton.)

Home Economics Extension

H. E. 151 f and s. Methods in Home Economics Extension (3)—Given under the direction of Venia M. Kellar and specialists. (Specialists.)

HORTICULTURE

PROFESSORS SCHRADER, MAHONEY, THURSTON, WALLS; ASSOCIATE PROFESSORS HAUT, LINCOLN, SHOEMAKER; MR. STIER, MR. HITZ, MR. SHUTAK.

Hort. 1 f, 2 s. General Horticulture (3, 3)—Two lectures and one laboratory. Designed for all students in Agriculture and Home Economics.

An introductory course, discussing the several phases of horticulture in a systematic survey of the problems of horticulture and practical means of solution.

First semester. Fruits and vegetables.

Second semester. Flowers, ornamental plants, propagation, and landscape gardening. First semester not a prerequisite.

Hort. 3 f, 4 s. Fruit Production (2-3, 2)—One or two lectures and one or two laboratories.

The practical application of the principles of fruit growing as related to climatic conditions, soil and water requirements, selection of sites, systems of planting, varieties, pruning, pollination, harvesting, washing, grading, and other pertinent problems.

One laboratory in the first semester is devoted to apple variety identification and judging. A fruit judging team is selected to compete in the Eastern States Intercollegiate Fruit Judging League.

A laboratory must be taken with a lecture, or two laboratories with one lecture.

Hort. 5 s. Vegetable Production (2-4)—Two lectures; two laboratories.

A study of the fundamental principles underlying all garden practices. The laboratory work is organized from the point of view of the home garden and commercial truck garden. Special studies are made of vegetable seed identification, methods of growing plants, garden planning, pest control, etc. Lectures may be taken without laboratory.

Hort. 6 f. Greenhouse Construction and Management (3)—Two lectures; one laboratory.

A detailed consideration of various types of houses and their management; location with respect to sites and markets; arrangement, construction, and costs of building and operation; practical methods of handling greenhouses under various conditions.

Hort. 7 s.—Greenhouse Management (3-4)—Two or three lectures; one laboratory. No prerequisite.

A continuation of Hort. 5 f.

Hort. 8 s. Small Fruits (2-3)—Two lectures; one laboratory. Lectures can be taken without laboratory.

A study of the principles and practices involved in the production of the small fruits including grapes, strawberries, raspberries, blueberries, blackberries, cranberries, etc. Plant characteristics, varieties, propagation, site

and soils, planting, soil management, fruiting habits, pruning, fertilizers, harvesting, and marketing receive consideration.

Hort. 9 f. Garden Flowers (3)—Two lectures; one laboratory.

Plants for garden use; the various species of annuals, herbaceous perennials, bulbs, bedding plants, and roses and their cultural requirements.

Hort. 10 y. Commercial Floriculture (6-7)—Two lectures; one or two laboratories. Prerequisite, Hort. 6 f and 7 s.

Methods of handling florist's bench crops and potted plants, the marketing of cut flowers, the retail business, and floral design and decoration. Trips to important commercial centers and flower shows will be made. (Not given in 1940-41.)

Hort. 11 f. Landscape Gardening (2)—Two lectures.

The theory and general principles of landscape gardening and their application to private and public areas. Special consideration is given to the improvement and beautification of the home grounds, farmsteads, and small suburban properties. Adapted to students not intending to specialize in landscape, but who wish some theoretical and practical knowledge of the subject.

Hort. 12 f. Landscape Design (3)—One lecture; two laboratories.

A consideration of the principles of general landscape design and practice in drafting technique, field work, and preparation of simple landscape plans.

Hort. 13 s. Landscape Design (3)—Three laboratories. Prerequisite, Hort. 12 f.

The design of private grounds and gardens and of architectural details used in landscape compositions; planting plans; analytical study of plans of practicing landscape architects; field observation of landscape developments.

Hort. 14 s. Civic Art (2)—Two lectures.

Principles of city planning and their application to village and rural improvement, including problems in design of civic centers, parks, school grounds, and other public and semi-public areas.

Hort. 16 f or s. Methods of Commercial Processing of Horticultural Crops (4)—Three lectures; one laboratory.

The fundamentals of canning and freezing horticultural crops: maturity studies; harvesting methods, including threshing of peas and lima beans; grades and grading of raw products; preparation for processing or freezing, such as washing, sizing, and blanching; methods of processing and freezing, and storage of frosted foods. Open only to juniors and seniors in Agriculture, Home Economics, and Bacteriology.

For Advanced Undergraduates and Graduates

Hort. 101 f, 102 s. Technology of Horticultural Plants (Fruits) (2, 2)—Two lectures.

A critical analysis of detailed studies on horticultural plants in relation to application to practice. An interpretation of horticultural knowledge, based on principles of physiology, chemistry, and other sciences. A study of underlying principles involved in growth, fruiting, storage, and quality of horticultural plants and products. (Haut.)

Hort. 103 f, 104 s. Technology of Horticultural Plants (Vegetables) (2, 2)—Two lectures. These courses are described under Hort. 101 f, 102 s. (Mahoney.)

Hort. 105 f or s. Technology of Horticultural Plants (Oramentals) (2)—Two lectures. This course is described under Hort. 101 f, 102 s. (Haut.)

Hort. 106 s. World Fruits and Nuts (2)—Two lectures. Designed for students in Commerce, Agricultural Economics, and Home Economics.

A study of the tropical and subtropical fruits and nuts of economic importance. The orange, lemon, grapefruit, pineapple, banana, date, fig, olive, avocado, papaya, mango, walnut, pecan, almond, filbert, tung nut, Brazil nut, cashew, and cocoanut receive consideration. Special emphasis is placed upon the botanical relationships, composition, varieties, climatic and cultural requirements, methods and problems of production, and the development and present commercial status of those grown in the United States and its possessions. (Not given in 1940-41.) (Haut.)

Hort. 107 y. Plant Materials (5)—One lecture; one or two laboratories.

A field or laboratory study of trees, shrubs, and vines used in ornamental planting. (Not given in 1940-41.) (Thurston.)

Hort. 108 f or s. Canning Crops Technology (3)—Two lectures; one laboratory. Prerequisites, senior standing, Hort. 16 and Plt. Phys. 101.

A course dealing with the more technical physico-chemical methods used in the study of the fundamentals of factors influencing the quality of raw products, physiological processes prior to and after blanching, grade of processed product. In addition, studies will be made of new types of equipment and recent research on methods of processing. Visits to canning plants and commercial laboratories will be required. (Mahoney, Walls.)

Hort. 109 f or s. Systematic Pomology (3)—Two lectures; one laboratory.

A study of the origin, history, taxonomic relationships, description, pomological classification and identification of tree and small fruits. (Haut.)

Hort. 110 f or s. Systematic Olericulture (3)—Two lectures; one laboratory.

A study of the classification and nomenclature of vegetable crops and the description and identification of varieties. The adaptation of varieties

to different environmental conditions and their special uses in vegetable production. (Walls.)

Hort. 111 y. Seminar (2).

Designed to give training in the interpretation, condensation, and oral presentation of the results of investigational work by reviewing recent scientific literature in the various phases of horticulture. (Staff.)

Hort. 112 y. Special Problems (2-4).

An advanced student in any of the divisions of horticulture may select a special problem for study. This may be either the summarizing of all the available knowledge on a particular problem or the investigation of some new problem. Where original investigation is carried on, the student should in most cases start the work during the junior year. (Staff.)

For Graduates

Hort. 201 y. Experimental Pomology (4)—Two lectures.

A systematic study of the sources of knowledge and opinion as to practices in pomology; methods and difficulties in experimental work in pomology and results of experiments that have been or are being conducted in all experiment stations in this and other countries. (Schrader.)

Hort. 202 y. Experimental Olericulture (4)—Two lectures.

A systematic study of the sources of knowledge and opinion as to practices in vegetable growing; methods and difficulties in experimental work in vegetable production and results of experiments that have been or are being conducted in all experiment stations in this and other countries. (Mahoney.)

Hort. 203 s. Experimental Pomology (2)—Two lectures. (Schrader.)

A continuation of Hort. 201 y.

Hort. 203 f. Experimental Olericulture (2)—Two lectures. (Mahoney.)

A continuation of Hort. 202 y.

Hort. 204 f or s. Methods of Horticultural Research (2)—One lecture; one laboratory.

Methods in use by horticultural research workers in the U. S. and foreign countries are discussed in detail, critically evaluating such methods for use in solving present problems. Discussion of photographic technique, application of statistical procedures, physical measurements, plot designs, survey methods, and experimental materials will be emphasized.

Hort. 205. Advanced Horticultural Research (4, 6, or 8)—Credit given according to work done.

Graduate students will be required to select problems for original research in pomology, vegetable gardening, or floriculture. These problems will be continued until completed and final results will be in the form of a thesis. (Staff.)

Hort. 206 f, 207 s. Advanced Horticultural Seminar (1, 1).

Oral reports with illustrative material are required on special topics or recent research publications in horticulture. Discussion by the students and staff members during and after each report is an essential part of the seminar. The aim of this course is to develop ability to analyze and to present research results orally as well as to review recent advances in horticulture.

(Staff.)

LIBRARY SCIENCE

ASSOCIATE PROFESSOR HINTZ; MR. FOGG, MR. ZIEGAUS.

L. S. 1 f and s. Library Methods (1).

This course is intended to help students use libraries with greater facility and effectiveness. Instruction, given in the form of lectures and practical work, is designed to interpret the library and its resources to the student. The course considers the classification of books in libraries, the card catalog, periodical literature and indexes, and certain essential reference books which will be found helpful throughout the college course and in later years.

MATHEMATICS

PROFESSORS T. H. TALIAFERRO, DANTZIG; ASSOCIATE PROFESSOR MARTIN; ASSISTANT PROFESSOR TITT; DR. LANCASTER, DR. ALRICH, DR. VAN STOCKUM, DR. WEYL, DR. PLASS, MR. VOLCKHAUSEN, MR. GILBERT, MR. WAGNER, MR. ECCLES, MR. GIBBONS, MR. HERBST, MR. SCHECHTER.

Students taking Mathematics 21 f, 22 s and 23 y who excel in mathematical ability are eligible for enrollment in an honors section.

Math. 1 f. Introductory Algebra (0)—Three lectures. Prerequisite, one year of high school algebra. Open without credit to students of engineering, chemistry and physics who lack the required preparation for Math. 21 f, or have failed the qualifying examination in Mathematics.

Fundamental operations, quadratic equations, simultaneous quadratic equations, polynomials and their graphs, progressions, binomial theorem, exponentials and logarithms.

Math. 2 f. Solid Geometry (0)—Two lectures. Prerequisite, plane geometry. Open to students in engineering, mathematics and physics who do not offer the entrance credit of one-half unit of solid geometry.

Lines and planes, cylinders and cones, the sphere, polyhedra.

Math. 7 f. Solid Geometry (2)—Two lectures. Prerequisite, plane geometry. This course is designed to prepare a student for teaching geometry in high school and is open to students in the College of Education.

Lines and planes, cylinders and cones, the sphere, polyhedra, geometry on the sphere, regular solids.

Math. 8 f, 10 s. Elements of College Mathematics (3, 3)—Three lectures. Prerequisite, at least one year of high school algebra. Required of biological, premedical and predental students.

This course acquaints the student with the elementary ideas in the following branches of mathematics: algebra, trigonometry, analytic geometry and calculus. Math. 8 f, or its equivalent, is a prerequisite for Math. 10 s.

First semester. *Algebra:* Quadratic equations, theory of equations, exponentials, logarithms, binomial theorem, permutations and combinations. *Trigonometry:* trigonometric functions, solution of triangles, trigonometric equations and identities.

Second semester. *Analytic geometry:* Cartesian coordinates, the straight line, the circle, the ellipse, graphing of elementary algebraic, exponential and logarithmic functions. *Calculus:* elementary theory of differentiation and integration.

Math. 18 y. Pictorial Geometry (4)—Two lectures. Required of students whose major is mathematics, and of students in the College of Education with mathematics as their major or minor.

The story of geometry, classical and modern, synthetic and analytic, presented by means of drawings and models made by the students themselves.

Math. 20 y. General Mathematics (6)—Three lectures. Primarily intended for students of economics and the social sciences. Required of all students in Business Administration. Prerequisite, one year of high school algebra.

Principles of algebra, trigonometry, analytic geometry; mathematics of finance; quadratic and higher equations; progressions and logarithms; compound interest and annuities; permutations and combinations; probabilities; graphing of algebraic and trigonometric functions; construction and interpretation of graphs; interpolation and approximation methods; rudiments of the calculus; introduction to statistical methods.

Math. 21 f and s. College Algebra (4)—Three lectures and one laboratory. Prerequisite, high school algebra completed and satisfactory passing of a qualifying test. Required of all students in the College of Engineering; of students whose major is mathematics, physics, or chemistry; of students in the College of Education who elect mathematics as their major or minor.

Foundations of algebra; binomial and multinomial expansions; progressions; determinants; elements of the theory of numbers; combinatorial analysis and probabilities; complex numbers; theory of equations; exponential functions and logarithms; principles of trigonometry.

Math. 22 s and f. Analytic Geometry (4)—Three lectures and one laboratory. Prerequisite, Math. 21 f. Required of all students in the College of Engineering; of students whose major is mathematics, physics, or chem-

istry; of students in Education who elect mathematics as their major or minor.

Cartesian and polar coordinates; line and circle; curves of the second order; higher algebraic and transcendental curves; periodograms; solid analytic geometry.

Math. 23 y. Calculus (8)—Three lectures and one laboratory. Prerequisites, Math. 8 f, 10 s; or 21 f, 22 s. Required of all students in the College of Engineering; of students with a major in mathematics, physics or chemistry; of students in the College of Education who elect mathematics as their major or minor.

Limits, derivatives, and differentials; maxima and minima; curvature; evolutes; envelopes; elements of curve theory; elementary theory of functions; partial derivatives. Indefinite and definite integrals; multiple integrals; calculation of arcs, areas, volumes, and moments; expansion in series.

For Advanced Undergraduates and Graduates

Students majoring in mathematics who have completed Freshman and Sophomore courses in mathematics with distinction in the honors sections are eligible to try for honors in mathematics. To receive the honors degree in mathematics, a student must: (1) complete the curriculum in mathematics found on page 121 of the catalogue with an average grade of B in all subjects; (2) pass honors examinations in mathematics at the end of the Junior and Senior years; (3) write a satisfactory thesis on an assigned topic in mathematics in the latter half of the Senior year. Students who wish to try for honors in mathematics should consult the executive officer of the department at the conclusion of their Sophomore year.

Math. 111 f. Elementary Mathematics from an Advanced Standpoint (2)—Two lectures.

A survey course in high school mathematics intended for workers in biological and social sciences, and for prospective teachers of mathematics and physics. **(Dantzig.)**

Math. 112 s. College Mathematics (2)—Two lectures. Prerequisite, Math. 111 f, or its equivalent.

A survey course of analytic geometry, and the calculus, intended for workers in the biological sciences and for prospective teachers of high-school mathematics and physics. **(Dantzig.)**

Math. 114 f. Differential Equations for Engineers (3)—Three lectures. Prerequisite, Math. 23 y.

This course is conducted in close cooperation with the College of Engineering, and deals with aspects of mathematics which arise in engineering theory and practice. Among the topics treated are the following: linear

differential equations; advanced methods in kinematics and dynamics; applications of analysis to electrical circuits, to aero-dynamics, bridge-design, etc. (Martin, Lancaster.)

Math. 115 s. Applied Calculus for Chemists (3)—Three lectures. Prerequisite, Math. 23 y.

This course is conducted in close cooperation with the Chemistry Department, and deals with the aspects of mathematics which arise in the theory and practice of chemistry. Among the topics treated are the following: partial and total derivatives; applications of mathematical analysis to thermo-dynamics, to molecular and atomic phenomena, and to physical chemistry. **(Lancaster.)**

Math. 116 f. Advanced Trigonometry (2)—Two lectures. Prerequisite, Math. 23 y or its equivalent.

Complex numbers; De Moivre, Euler and allied identities; trigonometric series and infinite products; graphing of periodic functions; hyperbolic trigonometry; trigonometric solution of equations; principles of spherical trigonometry. **(Dantzig.)**

Math. 122 s. History of Elementary Mathematics (2)—Two lectures. History of arithmetic, algebra and geometry. **(Dantzig.)**

Math. 123 s. Vector Analysis (2)—Two lectures. Prerequisite, Math. 142 s or its equivalent.

Scalars, vectors, matrices and determinants; transformations; linear dependence; canonical forms; elementary divisors; applications to geometry and mechanics. **(Alrich.)**

Math. 130 f. Analytical Mechanics (2)—Two lectures. Prerequisite, Math. 23 y.

Statics, equilibrium of a point and of flexible cords, virtual work, kinematics, dynamics of a particle, elementary celestial mechanics. (Not given in 1940-41.) **(Martin.)**

Math. 131 s. Analytical Mechanics (2)—Two lectures. Prerequisite, Math. 130 f or its equivalent.

Lagrangian equations for dynamical systems of one, two and three degrees of freedom. Hamilton's principle. The Hamilton-Jacobi partial differential equation. (Not given in 1940-41.) **(Martin.)**

Math. 140 y. Mathematical Seminar (4)—Two sessions. Open to juniors and seniors majoring in mathematics and graduate students.

This course is devoted to special topics not taken up in the regularly scheduled courses. **(Staff.)**

Math. 141 f. Higher Algebra (2)—Two lectures. Prerequisite, Math. 23 y.

Identities; multinomial expansion; combinatorial analysis; mathematical induction; undetermined coefficients; determinants; elementary theory of equations; complex magnitudes. **(Weyl.)**

Math. 142 s. Higher Algebra (2)—Two lectures. Prerequisite, Math. 141 f or its equivalent.

Inequalities; continued fractions; summation of series; difference equations; theory of numbers; diophantine equations. (Weyl.)

Math. 143 f. Advanced Calculus (2)—Two lectures. Prerequisite, Math. 23 y.

General methods of integration; multiple integration with physical applications; partial differentiation; geometrical and physical applications; mean value theorem; Jacobians; envelopes. (Not given in 1940-41.) (Titt.)

Math. 144 s. Advanced Calculus (2)—Two lectures. Prerequisite, Math. 143 f or its equivalent.

Elliptic integrals; line integrals; Green's theorem; equation of continuity; applications to hydrodynamics. (Not given in 1940-41.) (Titt.)

Math. 145 f. Advanced Plane Analytic Geometry (2)—Two lectures. Prerequisite, Math. 23 y.

Homogeneous coordinates; advanced theory of conic sections; Plücker characters of algebraic curves; cubic and quartic curves; Cremona transformations. (van Stockum.)

Math. 146 s. Solid Analytic Geometry (2)—Two lectures. Prerequisite, Math. 145 f or its equivalent.

General theory of quadric surfaces; the twisted cubic; line geometry; geometry on a sphere; cubic and quartic surfaces. (Alrich.)

Math. 151 f. Theory of Equations (2)—Two lectures. Prerequisite, Math. 23 y or its equivalent.

Complex numbers; fundamental theorem of algebra; equations of the third and fourth degree; algebraic solution of equations; finite groups; numerical solution of equations; criteria of irreducibility; cyclotomic equations. (Lancaster.)

Math. 152 s. Introduction to Modern Algebra (2)—Two lectures. Prerequisite, Math. 151 f or its equivalent.

Vectors; matrices; linear dependence; quadratic forms; infinite groups. (Lancaster.)

Math. 153 f. Advanced Differential Equations (2)—Two lectures. Prerequisite, Math. 23 y or its equivalent.

Equations of the first order; linear equations with constant and variable coefficients; change of variables; singular solutions; solution in series; numerical integration; ordinary differential equations in three variables; partial differential equations. (Titt.)

Math. 154 s. Topics in Analysis (2)—Two lectures. Prerequisite, Math. 153 f or its equivalent.

Theory of vibrations; Fourier series; calculus of variations; entropy; improper integrals. (Titt.)

Math. 155 f. Introduction to Projective Geometry (2)—Two lectures. Prerequisite, Math. 23 y.

The theorems of Desargues and Pappus; cross-ratio and homography; projective theory of conics; projective interpretation and generalization of elementary geometry. (Not given in 1940-41.) (Dantzig.)

Math. 156 s. Introduction to Differential Geometry (2)—Two lectures. Prerequisite, Math. 23 y.

Infinitesimal properties of plane curves; transformations; orthogonal trajectories; envelopes; roulettes and glissettes; curvilinear coordinates in the plane. (Not given in 1940-41.) (van Stockum.)

For Graduates

Math. 220 f. Theory of Functions of a Complex Variable (2)—Two lectures. Prerequisites, Math. 143 f and 144 s, or their equivalent.

Complex numbers, power series, integration of analytic functions, Cauchy integral formula, Cauchy theory of analytic functions; special analytic functions. (Weyl.)

Math. 221 s. Theory of Functions of a Complex Variable (2)—Two lectures. Prerequisite, Math. 220 f or its equivalent.

Meromorphic functions, Weierstrass theory of analytic functions, analytic continuation and Riemann surfaces, conformal representation. (Weyl.)

Math. 222 f. Theory of Functions of a Real Variable (2)—Two lectures. Prerequisites, Math. 143 f and 144 s, or their equivalent.

Real numbers, continuous functions, differentiable functions, uniform convergence, implicit functions, Jacobians, the Riemann integral, infinite series, dominant functions, real analytic functions. (Not given in 1940-41.) (Martin.)

Math. 224 s. Theory of Functions of a Real Variable (2)—Two lectures. Prerequisite, Math. 222 f or its equivalent.

Point sets, Heine-Borel theorem, content and measure of point sets, the Lebesque integral. (Not given in 1940-41.) (Martin.)

Math. 225 f. Projective Geometry (2)—Two lectures. Prerequisite, Math. 155 f or its equivalent.

Axiomatic development of geometry; fundamental theorems; projective equivalence; the group of collineations in the plane and in space; non-Euclidean geometries. (Not given in 1940-41.) (Dantzig.)

Math. 226 s. Differential Geometry (2)—Two lectures. Prerequisite, Math. 156 s or its equivalent.

Principles of vector analysis; skew curves; kinematical applications; geometry on a surface; general theory of surfaces; curvature and space structure; Riemannian geometries. (van Stockum.)

Math. 227 s. Infinite Processes (2)—Two lectures. Prerequisite, Math. 222 f or its equivalent.

Convergence of infinite series and products; Fourier series; orthogonal functions, asymptotic series. (Lancaster.)

Math. 231 s. Partial Differential Equations with Applications to Mathematical Physics (2)—Two lectures. Prerequisites, Math. 143 f, 144 s, and 153 f or their equivalent.

Partial differential equations of the first and second order; linear equations; total differential equations; equations of the Monge-Ampére type; the Laplace equation; harmonics; applications to electricity, heat, elasticity, and hydrodynamics; potential theory. (Titt.)

Math. 232 s. Theory of Probabilities and Least Squares (2)—Two lectures. Prerequisite, Math. 23 y.

Frequency and probability; the concept of "equally likely"; combinatorial analysis; addition and multiplication theorems; frequency of distribution; continuous probabilities; applications to statistics, to theories of errors and correlations, and to molecular theories. (Not given in 1940-41.) (Titt.)

Math. 235 s. Modern Algebra (2)—Two lectures. Prerequisite, Math. 152 s or its equivalent.

Sets; classes; groups; isomorphism; rings; fields; Galois theory; ordered and well-ordered sets; ideals; linear algebras. (Not given in 1940-41.) (Weyl.)

Math. 240 y. Graduate Colloquium.

A forum for the presentation and critical discussion of mathematical research conducted by the faculty and advanced students. (Staff.)

Math. 250 y. Seminar in the History of Mathematics (4)—Two lectures. Prerequisite, Math. 23 y or its equivalent.

Celebrated Problems of Mathematics from antiquity to our own days. History of individual mathematical disciplines such as the theory of numbers, non-Euclidean geometry, vector and matrix analysis, theory of functions, theory of groups, theory of aggregates. Special emphasis will be laid on the evolution of mathematical concepts and principles. (Dantzig.)

SELECTED TOPICS COURSES

In addition to the preceding, a number of courses will be offered from time to time by the various members of the staff in their respective fields of specialization. These courses are intended primarily for candidates for an advanced degree, and aim at developing materials for dissertations; they will, however, be open to any qualified student.

Math. 242. Selected Topics in Modern Geometry. (Dantzig, van Stockum.)

Math. 243. Selected Topics in Modern Analysis. (Martin, Lancaster, Weyl.)

Math. 244. Selected Topics in Dynamics. (Martin.)

Math. 245. Selected Topics in Mathematical Physics. (van Stockum, Titt.)

Math. 246. Selected Topics in Applied Mathematics. (Dantzig, Alrich.)

Math. 247. Selected Topics in Differential and Difference Equations. (Lancaster.)

MILITARY SCIENCE AND TACTICS

PROFESSOR OF MILITARY SCIENCE AND TACTICS, LIEUTENANT COLONEL FINLEY; ASSISTANT PROFESSORS, MAJOR JONES, MAJOR WYSOR, MAJOR WESTFALL, MAJOR GRISWOLD, MAJOR ELLIS; SERGEANT MARS, SERGEANT NORRIS, SERGEANT UHRINAK

‡Basic Course

M. I. 1 y. Basic R. O. T. C. (2)—One lecture; two drill periods. Freshman year.

First Semester: National Defense Act, including basic organization and the R. O. T. C.; military courtesy; command and leadership; rifle marksmanship.

Second Semester: Command and leadership; automatic rifle; military history and policy; military hygiene and first aid; citizenship; military organization.

M. I. 2 y. Basic R. O. T. C. (4)—One lecture; two drill periods. Sophomore year.

First Semester: Scouting and patrolling; musketry; military history; command and leadership.

Second Semester: Military history; combat principles of the squad; command and leadership; map reading.

‡‡Advanced Course

M. I. 101 y. Advanced R. O. T. C. (6)—Three lectures; two drill periods. Junior year.

First Semester: Aerial photograph reading; machine guns; heavy weapons; combat principles; command and leadership; administration.

Second Semester: Combat principles of rifle, machine gun, and weapons platoons; pistol marksmanship; review of rifle marksmanship; command and leadership.

‡Required of qualified students.

‡‡Elective for qualified undergraduates in accordance with contract.

M. I. 102 y. Advanced R. O. T. C. (6)—Three lectures; two drill periods. Senior year.

First Semester: Combat principles (including organization of larger combat units); command and leadership; weapons (tanks).

Second Semester: Company Administration; military history and policy; military law; Officers' Reserve Corps regulations; mechanization; chemical agents and uses.

MODERN LANGUAGES

PROFESSORS ZUCKER, FALLS; ASSOCIATE PROFESSOR KRAMER; ASSISTANT PROFESSORS DARBY, PRAHL; MISS WILCOX, MR. SCHWEIZER, DR. MILLER, MR. EVANGELIST, MR. SCOPPETTONE, MR. MUTZIGER, MR. BACKENSTOSS, MR. BANTA.

All students whose major is in Modern Languages are required to take *Introductory Survey of Comparative Literature* (Comp. Lit. 101f, Lit. 102s), and they are strongly advised to take the review course (French 99f, German 99f, Spanish 99f). The following courses are recommended: *Survey of Western Civilization* (H. 1y). *Introduction to Philosophy* (Phil. 1), *The Old Testament as Literature* (Comp. Lit. 104s), *Prose and Poetry of the Romantic Age.* (Eng. 113f and 114s), *Romanticism in France and Germany* (Comp. Lit. 105 f and 106 s). For a major in German, *Old English* and *Beowulf* (Eng. 102 f and 103 s).

Specific requirements for the majors in the different languages are as follows: French—French 9y, 10y, 15y, and three additional year-courses in literature in the 100 group; German—German 10y, 15y, and three additional year courses in the 100 group; Spanish—Spanish 6y, 15y, and three additional year-courses in the 100 group.

A. French

French 1 y. Elementary French (6)—Three lectures. Students who offer two units in French for entrance, but whose preparation is not adequate for second-year French, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

French 2 s. Elementary Conversation (1)—One lecture. Prerequisite, the grade of A or B in the first semester of French 1 y. Students who are interested in French, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of French 1 y.

French 3 y. Second-Year French (6)—Three lectures. Prerequisite, French 1 y or equivalent.

Study of grammar continued; composition; conversation; translation of narrative and technical prose. In the organization of classes, certain sections are set aside for the reading of scientific French texts.

French 4 f. Grammar Review (2)—Two lectures. Designed particularly for students who enter with three or more units in French, who expect to do advanced work in the French language or literature, but who are not prepared to take French 10 y. Properly qualified students may elect this course at the same time as French 6 y, 7 y, 8 y, 15 y.

French 5 s. Intermediate Conversation (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of French 3 y. Students who expect to take advanced work in French literature, and who have completed the first semester of French 3 y with the grade of A or B, should take this course in conjunction with the second semester of French 3 y.

Practical exercises in conversation, based on material dealing with French history, art, and music.

French 6 y. The Development of the French Novel (6)—Three lectures.

Introductory study of the history and growth of the novel in French literature; of the lives, works, and influences of important novelists. Reports. (Not given in 1940-41.)

French 7 y. The Development of the French Drama (6)—Three lectures.

Introductory study of the French drama of the seventeenth, eighteenth, and nineteenth centuries. Translation and collateral reading. Reports. (Not given in 1940-41.)

French 8 y. The Development of the Short Story in French (6)—Three lectures.

A study of the short story in French literature; reading and translation of representative examples.

French 9 y. French Phonetics (2)—One lecture. Prerequisite, French 1 y.

French 10 y. Intermediate Grammar and Composition (6)—Three lectures. Prerequisite, French 3 y.

(French 9 y and 10 y are required of students preparing to teach French.)

French 15 y. Introduction to French Literature (6)—Three lectures. Prerequisite, French 3 y.

An elementary survey introducing the student to the chief authors and movements in French literature. This course is given in French.

French 99 f. Rapid Review of the History of French Literature (1)—One lecture.

Weekly lectures stressing the high points in the history of French literature, art, and music. This course provides a rapid review for majors by means of a brief survey of the entire field.

For Advanced Undergraduates and Graduates

A more intensive survey of modern French literature is offered by means of rotating courses roughly divided by centuries.

French 102 y. French Literature of the 17th Century (4)—Two lectures. (Wilcox.)

French 103 y. French Literature of the 18th Century (4)—Two lectures. (Not given in 1940-41.) (Falls.)

French 104 y. French Literature of the 19th Century (4)—Two lectures. (Not given in 1940-41.) (Wilcox.)

French 105 y. French Literature of the 20th Century (4)—Two lectures. (Falls.)

French 110 y. Advanced Composition (6)—Three lectures. Prerequisite, French 10 y. This course is required of students preparing to teach French. (Falls.)

Attention is also called to Comparative Literature 105 f, *Romanticism in France.*

For Graduates

French 201. Research (2-4)—Credits determined by work accomplished. (Staff.)

French 202 y. Diderot and the Encyclopaedists (4)—Two lectures. (Not given in 1940-1941.) (Falls.)

French 204 y. Georges Duhamel, Poet, Dramatist, Novelist (4)—Two lectures. (Falls.)

French 205 y. French Literature of the Middle Ages and the Renaissance (4)—Two lectures. (Darby.)

French 206 f, 207 s. The French Novel in the First Half of the Nineteenth Century (2, 2)—Two lectures. (Not given in 1940-41.) (Falls.)

French 208 f, 209 s. The French Novel in the Second Half of the Nineteenth Century (2, 2)—Two lectures. (Falls.)

French 210 y. Seminar (2-4)—One meeting weekly. Required of all graduate students in French. (Staff.)

French 212 s. Introduction to Old French (2)—Two lectures. (Darby.)

French 220 f, 221 s. Reading Course (2, 2)—One conference.

Designed to give graduate students the background of a survey of French literature. Extensive outside reading with reports and connecting lectures. (Falls.)

B. German

German 1 y. Elementary German (6)—Three lectures. Students who offer two units in German for entrance, but whose preparation is not adequate for second-year German, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

German 2 s. Elementary Conversation (1)—One lecture. Prerequisite, the grade of A or B in the first semester of German 1 y. Students who

are interested in German, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of German 1 y.

German 3 y. Second-Year German (6)—Three lectures. Prerequisite, German 1 y or equivalent.

Reading of narrative and technical prose, grammar review, and oral and written practice. In the organization of classes, certain sections are set aside for the reading of scientific German texts.

German 4 f. Grammar Review (2)—Two lectures. Designed particularly for students who enter with three or more units in German and who expect to do advanced work in the German language or literature, but who are not prepared to take German 10 y. Properly qualified students may elect this course at the same time as German 6 f or 8 f.

German 5 s. Intermediate Conversation (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of German 3 y. Students who expect to take advanced work in German literature, and who have completed the first semester of German 3 y with the grade of A or B, should take this course in conjunction with the second semester of German 3 y.

Practical exercises in conversation; based on material dealing with German history, art, and music.

German 6 f, 7 s. Advanced German (3, 3)—Three lectures. Prerequisite, German 3 y or equivalent.

Rapid reading of novels and short stories from recent German literature. (Not given in 1940-41.)

German 8 f, 9 s. Advanced German (3, 3)—Three lectures. Prerequisite, German 3 y or equivalent.

Rapid reading of dramas from recent German literature. (Not given in 1940-41.)

German 10 y. German Grammar and Composition (4)—Two lectures. Prerequisite, German 3 y.

A thorough study of the more detailed points of German grammar with ample practice in composition work. This course is required of students preparing to teach German.

German 15 y. Introduction to German Literature (6)—Three lectures. Prerequisite, German 3 y or equivalent.

An elementary survey of the history of German literature; a study of representative authors and works.

German 99 f. Rapid Review of the History of German Literature (1)—One lecture.

Weekly lectures stressing the high points in the history of German literature, art, and music. This course provides a rapid review for majors by means of a brief survey of the entire field.

For Advanced Undergraduates and Graduates

German 101 f, 102 s. German Literature of the 18th Century (3, 3)—Three lectures.

First semester, the earlier classical literature.

Second semester, the later classical literature. (Prahl.)

German 103 f, 104 s. German Literature of the 19th Century (3, 3)—Three lectures.

First semester, Romanticism and Young Germany.

Second semester, the Literature of the Empire. (Not given in 1940-41.) (Prahl.)

German 105 f, 106 s. Contemporary German Literature (3, 3)—Three lectures.

A study of the lives, works, and influence of outstanding authors of the present. (Prahl.)

Attention is also called to Comparative Literature 106s, *Romanticism in Germany,* and Comparative Literature 107f, *The Faust Legend in English and German Literature.*

For Graduates

German 201. Research (2-4)—Credits determined by work accomplished. (Staff.)

German 202 y. The Modern German Drama (4)—Two lectures.

Study of the naturalistic, neo-romantic, and expressionistic drama against the background of Ibsen and other international figures. (Prahl.)

German 203 y. Schiller (4)—Two lectures.

Study of the life and works of Schiller, with emphasis on the history of his dramas. (Not given in 1940-41.) (Prahl.)

German 204 f. Goethe's Faust (2)—Two lectures. (Not given in 1940-41.) (Zucker.)

German 205 s. Goethe's Works Outside of Faust (2)—Two lectures. (Not given in 1940-41.) (Zucker.)

German 206 y. The Romantic Movement (4)—Two lectures. (Prahl.)

German 210 y. Seminar (2-4)—Two meetings weekly.

Subject for 1940-41: Lessing. Required of all graduate students in German. (Staff.)

German 220 f, 221 s. Reading Course (2, 2)—One conference.

Designed to give graduate students the background of a survey of German literature. Extensive outside reading with reports and connecting lectures. (Prahl.)

German 230 f. Introduction to Indo-European Linguistics (3)—Three lectures. (Mutziger.)

German 231 s. Middle High German (3)—Three lectures. (Mutziger.)

C. Italian

Italian 1 y. Elementary Italian (6)—Three lectures. Open to freshmen. Also recommended for advanced students in French and Spanish.

Drill in pronunciation and in the elements of the language. Reading of short stories from modern authors.

Italian 2 s. Elementary Conversation (1)—One lecture. Prerequisite, the grade of A or B in the first semester of Italian 1 y. Students who are interested in Italian, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of Italian 1 y.

D. Spanish

Spanish 1 y. Elementary Spanish (6)—Three lectures. Students who offer two units in Spanish for entrance, but whose preparation is not adequate for second-year Spanish, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

Spanish 2 s. Elementary Conversation (1)—One lecture. Prerequisite, the grade of A or B in the first semester of Spanish 1 y. Students who are interested in Spanish, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of Spanish 1 y.

Spanish 3 y. Second-Year Spanish (6)—Three lectures. Prerequisite, Spanish 1 y or equivalent.

Reading of narrative works and plays; grammar review; oral and written practice.

Spanish 4 f. Grammar Review (2)—Two lectures. Designed particularly for students who enter with three or more units in Spanish, who expect to do advanced work in the Spanish language or literature, but who are not prepared to take Spanish 6 y. Properly qualified students may elect this course at the same time as Spanish 15 y.

Spanish 5 s. Intermediate Conversation (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of Spanish 3 y. Students who expect to take advanced work in Spanish literature, and who have completed the first semester of Spanish 3 y with the grade of A or B, should take this course in conjunction with the second semester of Spanish 3 y.

Practical exercises in conversation; based on material dealing with Spanish history, art, and music.

Spanish 6 y. Advanced Composition and Conversation (4)—Two lectures. Prerequisite, Spanish 3 y or equivalent.

Introduction to phonetics; oral and written composition. This course is required of students preparing to teach Spanish.

Spanish 15 y. Introduction to Spanish Literature (6)—Three lectures.

An elementary survey introducing the student to the chief authors and movements in Spanish literature.

Spanish 99 f. Rapid Review of the History of Spanish Literature (1)—One lecture.

Weekly lectures stressing the high points in the history of Spani literature, art, and music. This course provides a rapid review for maj by means of a brief survey of the entire field.

For Advanced Undergraduates and Graduates

Spanish 103 f, 104 s. The Spanish Drama (3, 3)—Three lectures.

First semester, the drama of the Golden Age.

Second semester, the drama since Calderon. (Not given in 1940-41.)
(Darby.)

Spanish 105 y. Cervantes (6)—Three lectures.

The life and times of Cervantes; principal prose works. (Not given in 1940-41.)
(Darby.)

Spanish 107 f, 108 s. The Spanish Novel (3, 3)—Three lectures.

First semester, classic novels and short stories of the Golden Age and of the eighteenth century.

Second semester, a study of the development of the modern novel.
(Darby.)

Spanish 151 f. Latin-American Literature: The Colonial Period (3)—Three lectures.
(Darby.)

Spanish 152 s. Latin-American Literature: The Modern Period (3)—Three lectures.
(Darby.)

For Graduates

Spanish 201. Research (2-4)—Credits determined by work accomplished.
(Staff.)

Spanish 202 y. The Golden Age in Spanish Literature (6)—Three lectures.

Detailed study of the classical authors. (Not given in 1940-1941.)
(Darby.)

Spanish 203 f, 204 s. Spanish Poetry (3, 3)—Three lectures.

First semester, the epic, the ballad and popular poetry, early lyrics, poetry of the Golden Age.

Second semester, poetry of the eighteenth, nineteenth, and twentieth centuries.
(Darby.)

Spanish 210 y. Seminar (2-4)—One meeting weekly. Required of all graduate students in Spanish.
(Darby.)

Spanish 212 f. Introduction to Old Spanish (2)—Two lectures.
(Darby.)

Spanish 220 f, 221 s. Reading Course (2, 2)—One conference.

Designed to give graduate students the background of a survey of Span- literature. Extensive outside reading with reports and connection tures.
(Darby.)

MUSIC

MR. RANDALL, MRS. GAVIN.

Music 1 y. Music Appreciation (2)—One lecture.

A study of all types of classical music with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra and the instruments that it employs. A study of musical form. The development of the opera and oratorio. Great singers of the past and present. Well-known musicians occasionally appear as guest lecturers and performers.

Music 2 y. History of Music (2)—One lecture.

A comprehensive course in the history of music covering the development of all forms of music from ancient times through the renaissance; the classic and the romantic schools; and the more modern composers.

Music 3 y. Chorus (1).

This course is offered for those interested in part-singing. After voice trials, students who have ability to read and sing music of the grade of easy songs are admitted. Members of the Women's Chorus and the Men's Glee Club indicated hereafter are combined at times for mixed chorus singing.

(A) *Women's Chorus.* Study of part-singing for women's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the chorus.

(B) *Men's Glee Club.* Study of part-singing for men's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the Glee Club.

Music 4 y. Orchestra (1).

The purpose of the University Orchestra is study of the classics. Works of the standard symphonists from Haydn and Mozart to Wagner and the modern composers are used. Students who play orchestral instruments are eligible for membership. At least one rehearsal of two hours' duration is held each week, and all players are expected to take part in public performances.

Music 5 y. Harmony (4)—Two lectures.

This course includes a study of major and minor scales, intervals, harmonic progressions, primary and secondary triads in root position and first and second inversions, the dominant seventh chord in its root position and inversions, altered and mixed chords and modulation.

The above theory is taught to give the student a basis for ear training, dictation, melody writing, and melody harmonization.

PHILOSOPHY

PROFESSOR MARTI.

Phil. 1 f. Introduction to Philosophy (3)—Three lectures. Not open to freshmen.

A study of Greek and Roman thought and its connection with present ways of thinking. This course or Phil. 2 s may be chosen in fulfillment of the philosophy requirement.

Phil. 2 s. Introduction to Philosophy (3)—Three lectures. Not open to freshmen.

A study of the development of modern thought since the Renaissance. This course or Phil. 1 f may be chosen in fulfillment of the philosophy requirement.

Phil. 11 s. Modern European Philosophy (3)—Three lectures. Prerequisite, Phil. 1 f or 2 s.

A continuation of Phil. 1 f or 2 s. Alternates with Phil. 12 s. (Not given in 1940-41.)

Phil. 12 s. American Philosophy (3)—Three lectures. Prerequisite, Phil. 1 f or 2 s.

A continuation of Phil. 1 f or 2 s. Alternates with Phil. 11 s.

Phil. 21 f. Aesthetics (3)—Three lectures. Prerequisite, Phil. 1 f or 2 s, and prerequisite or, by special permission, corequisite, a course in Art, Music 1 y or 2 y or a 100 course in literature.

An historical and systematic introduction to the philosophy of art. Alternates with Phil. 22 f and 23 f. (Not given in 1940-41.)

Phil. 22 f. Logic (3)—Three lectures. Prerequisite, Phil. 1 f or 2 s, and satisfactory preparation in mathematics or science.

An introductory course, designed especially for science majors. Alternates with Phil. 21 f and 23 f. (Not given in 1940-41.)

Phil. 23 f. Ethics (3)—Three lectures. Prerequisite, Phil. 1 f or 2 s.

A study of the implications of problems of the good life. Alternates with Phil. 21 f and 22 f.

Phil. 31 f. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1 f or 2 s.

One or several relatively easy philosophical works will be read, and discussed in class. The topic will be changed, from semester to semester, although the same work may be studied again, after three or four semesters. Not more than two credits allowed to any one student.

Phil. 32 s. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1 f or 2 s.

Similar to Phil. 31 f.

Phil. 33 f. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1 f or 2 s. (Not given in 1940-41.)

Phil. 34 s. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1 f or 2 s. (Not given in 1940-41.)

For Advanced Undergraduates and Graduates

Phil. 101 f. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

The system of one philosopher, or the development of one movement, will be studied throughout the semester. The topic will be changed, from semester to semester, although, after three or four semesters, the same system may be chosen again. (Marti.)

Phil. 102 s. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor. (Marti.)

Similar to Phil. 101 f.

Phil. 103 f. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor. (Marti.)

Similar to Phil. 101 f. (Not given in 1940-41.)

Phil. 104 s. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor. (Marti.)

Similar to Phil. 101 f. (Not given in 1940-41.)

PHYSICS

PROFESSOR EICHLIN; DR. DICKINSON, DR. MYERS, MR. SMITH, MR. KEENE.

Phys. 1 y. General Physics (8)—Three lectures; one laboratory. Required of students in the premedical and predental curricula. This course satisfies the minimum requirement for a science major. Prerequisites, Math. 8 f, 10 s; or Math. 21 f, 22 s.

A study of the physical phenomena in mechanics, heat, sound, light, magnetism, and electricity. Laboratory fee, $5.00 per semester.

Phys. 2 y. General Physics (10)—Four lectures; one laboratory. Required of all students in the engineering curricula, and of those with chemistry, mathematics, and physics majors. Elective for other students. Prerequisites, Math. 21 f, 22 s, and 23 y. The last may be taken concurrently.

A study of mechanics, heat, sound, light, magnetism, and electricity. Laboratory fee, $5.00 per semester.

Phys. 3 y. Elementary Physics (6)—Three lectures.

This introductory course is designed to meet the needs of students who desire to become acquainted with the fundamental principles of physics. Instruction will be given by lectures, recitations, and experimental demonstrations. Laboratory fee, $3.00 per semester.

Phys. 51 f, 52 s. Photography (2, 2)—One lecture; one laboratory.

A study of the physical principles of the camera, enlarger, exposure meter, filter, and other photographic devices. Special emphasis on the application of photographic methods in the laboratory. Prerequisite, Phys. 1 y or 2 y. Laboratory fee, $5.00 per semester.

For Graduates and Advanced Undergraduates

Phys. 101 f. Precision of Measurements (3)—Three lectures. Prerequisites, Phys. 2 y or 1 y and Math. 23 y.

A discussion of the principles underlying the treatment of experimental data, as to precision of observations, errors, interpolation, curve analysis, etc., with especial emphasis on the planning of investigations involving measurements. The course is intended as an introduction to quantitative experimental work. (Eichlin.)

Phys. 102 s. Physical Measurements (3)—Two lectures; one laboratory. Prerequisite, Phys. 101 f.

This course, supplementing Phys. 101 f, is designed to familiarize the student with the manipulation of various types of apparatus used in experimentation in physical problems, and the adaptation and analysis of data so obtained. Laboratory fee, $5.00. (Eichlin.)

Phys. 103 y. Advanced Physics (6)—Three lectures. Prerequisite, Phys. 1 y.

This course, supplementing Phys. 1 y, is an advanced study of physical phenomena in optics, spectroscopy, conduction of electricity through gases, photoelectricity, etc., with a comprehensive review of basic principles involved. It is intended to familiarize the student in a general survey with some of the recent developments in physics. (Smith.)

Phys. 104 y. Advanced Experiments (6)—One lecture; two laboratories. Prerequisite, Phys. 103 y.

This course, supplementing Phys. 1 y, is intended to provide the student with experience in experimental physics. Laboratory fee, $5.00 per semester. (Not given in 1940-41.) (Myers.)

Phys. 105 f. Heat (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y or 1 y and Math. 23 y.

The classical phenomena of heat and radiation are developed on the basis of the kinetic molecular theory and the quantum theory. The first and second laws of thermodynamics are applied to physical processes. Laboratory fee, $5. (Not given in 1940-41.) (Myers.)

Phys. 106 s. Theoretical Mechanics (3)—Three lectures. Prerequisite, Phys. 2 y or 1 y and Math. 23 y.

An analytical treatment of the fundamental principles of kinematics and dynamics is presented with problems to illustrate these principles. The use of generalized coordinates is illustrated. The equations of Lagrange are applied to selected topics in the field of dynamics. (Not given in 1940-41.) (Myers.)

Phys. 107 s. Optics (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y or 1 y and Math. 23 y.

A study is made of selected topics in the refraction, reflection, interference, diffraction, and polarization of light. The principles are employed in a detailed study of optical systems of telescope, microscope, spectroscope, and interferometer. Laboratory fee, $5.00. (Dickinson.)

Phys. 108 y. Electricity (6)—Two lectures; one laboratory. Prerequisites, Phys. 2 y or 1 y and Math. 23 y.

A study of electrical properties of matter and space with applications to common electrical instruments and apparatus. Laboratory fee, $5.00 per semester. (Dickinson.)

Phys. 109 y. Electron Physics (6)—Two lectures; one laboratory. Prerequisites, Phys. 2 y or 1 y and Math. 23 y.

The discrete nature of matter, electricity, and radiation is emphasized from an empirical point of view. The determination of the fundamental electronic and molecular constants is treated in detail. The process of electrical discharge through gas and vacuum is ramified to include discussion of radioactivity, photoelectricity, thermionics, and atomic structure. Laboratory fee, $5.00 per semester. (Myers.)

Phys. 110 f. Sound (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y or 1 y and Math. 23 y.

A study is made of vibrating systems, the propagation and scattering of sound waves, standing sound waves, sound wave energy, etc. Laboratory fee, $5.00. (Myers.)

Phys. 111 f, 112 s. Mathematical Physics (3, 3)—Three lectures. Prerequisite, Phys. 2 y or 1 y and Math. 23 y.

Selected topics in physics will be treated to illustrate certain mathematical methods, particularly the use of derivatives and differentials,

methods of integration, infinite series, vectors, ordinary and partial differential equations, orthonormal sets of functions. (Myers.)

Phys. 113 f, 114 s. Properties of Matter (3, 3)—Three lectures. Prerequisite, Phys. 2 y or 1 y and Math. 23 y.

A study of the constituent particles of matter and such properties of matter as gravitation, molecular attraction, elasticity, special properties of solids and of fluids at rest and in motion, wave propagation. (Eichlin.)

Phys. 115 f, 116 s. High Frequency Phenomena (3, 3)—Two lectures, one laboratory. Prerequisite, Phys. 2 y or 1 y and Math. 23 y.

A study of resonant circuits, characteristics of electron tubes, high frequency generators, filters, electromagnetic waves, propagation of waves in wires and through a conducting medium. Laboratory fee, $5.00 per semester. (Not given in 1940-41.) (Dickinson.)

Phys. 117 y. Applied Mechanics (4)—Two lectures. Prerequisites, Phys. 2 y and Math. 23 y. Required of juniors in chemical engineering.

A study of the fundamentals and principles of the kinetics and kinematics of bodies in translation and rotation, and of elasticity of solids, with special regard to their engineering application. (Eichlin.)

For Graduates

Phys. 201 f. Atomic Structure (3)—Three lectures.

A development of atomic theory by a discussion of the various atomic properties, particularly those of emission of spectra, scattering of x-rays and electrons, and valency. (Myers.)

Phys. 202 f, 203 s. Spectra I and II (3, 3)—Three lectures.

I. Atomic Spectra. Interpretation of spectral series, fine and hyperfine structure, line intensities and polarization, line contours, and effects of external fields in light of modern atomic theory.

II. Molecular Spectra. A discussion of molecular spectra with particular reference to the information that is given about molecular structure, specific heats, entropy, and related phenomena. (Not given in 1940-41.) (Myers.)

Phys. 204 f, 205 s. Quantum Mechanics (3, 3)—Three lectures.

A treatment of the general methods of quantum mechanics with applications to the theory of atomic and molecular structure, the theory of collision processes, and the theories of radiation and electrodynamics. (Myers.)

Phys. 206 s. Nuclear Structure (3)—Three lectures.

The theory of the nucleus is developed by a discussion of masses, charges, magnetic moments, radioactivity, nuclear reactions, scattering, and interaction with radiation fields. (Myers.)

Phys. 207 f, 208 s. Modern Physics (3, 3)—Three lectures.

A comprehensive survey of developments in physics leading to recent concepts of atomic structure, theory of radiation, interaction of radiation and matter, quantum theory, relativistic mechanics, cosmology. (Dickinson.)

Phys. 209 f, 210 s. Dynamics I and II (3, 3)—Three lectures.

I. A treatment of dynamical systems in generalized coordinates by the equations of Lagrange, of Hamilton, and of Hamilton-Jacobi, by the Hamiltonian Principle, and by the use of canonical transformations.

II. Derivation of the equations of motion of a fluid, a study of irrotational motion, vortex motion, motion of solids through liquids, waves through liquids, viscosity. (Not given in 1940-41.) (Myers.)

Phys. 211 f. Electrodynamics (3)—Three lectures.

The electric and magnetic fields; properties of dielectrics; properties of electric conductors; electromagnetic induction; electromagnetic radiation; dispersion theory; electro- and magneto-optics. (Not given in 1940-41.) (Dickinson.)

Phys. 212 s. Physical Optics (3)—Three lectures.

A mathematical study of the electromagnetic theory of light, with applications to interference, diffraction, dispersion, and polarization. (Not given in 1940-41.) (Dickinson.)

Phys. 213 f, 214 s. Theory of Elasticity (3, 3)—Three lectures.

A comprehensive discussion of the development of theoretical concepts of elasticity with particular attention to torsion, stresses in beams, curved bars, thin plates, stresses produced by dynamical causes, propagation of waves in solid media. (Eichlin.)

Phys. 215 f, 216 s. X-Ray and Crystal Structure (3, 3)—Three lectures.

A discussion of the production and measurement of X-rays with the application of X-ray methods to the study of the physical properties of crystals. (Not given in 1940-41.) (————.)

Phys. 217 y. Seminar (2).

Presentation of reports and discussion of current developments in physics and of original investigations on special problems. (Staff.)

POLITICAL SCIENCE

PROFESSOR HOWARD; ASSOCIATE PROFESSOR STEINMEYER; ASSISTANT PROFESSOR BONE; DR. KLINE, MR. WALTHER.

Pol. Sci. 1 f and s. American National Government (3)—Three lectures. Open to freshmen.

A study of the organization and functions of the national government of the United States.

Pol. Sci. 4 f and s. State and Local Government (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A study of the organization and functions of state and local government in the United States, with special emphasis upon the government of Maryland.

Pol. Sci. 7 f, 8 s. Comparative Government (2, 2)—Two lectures. Prerequisite, Pol. Sci. 1.

First semester, a comparative study of the governments of Great Britain, France, and Switzerland.

Second semester, a comparative study of the dictatorial governments of Europe, with special emphasis upon Italy, Germany, and the U. S. S. R.

For Advanced Undergraduates and Graduates

Pol. Sci. 101 f. International Relations (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

The course deals with the major factors underlying international relations, the influence of geography, climate, nationalism and imperialism, and the development of international organizations. (Steinmeyer.)

Pol. Sci. 102 s. International Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A study of the principles governing international intercourse in time of peace and war, as illustrated in texts and cases. (Steinmeyer.)

Pol. Sci. 104 s. Recent Far Eastern Politics (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

The background and interpretation of recent political events in the Far East and their influence on world politics. (Steinmeyer.)

Pol. Sci. 105 f. Problems of World Politics (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

The course deals with governmental problems of an international character, such as causes of war, problems of neutrality, propaganda, etc. Students are required to report on readings from current literature. (Steinmeyer.)

Pol. Sci. 111 f. Principles of Public Administration (3)—Three lectures. Prerequisite, Pol. Sci. 4 or consent of instructor.

A functional study of public administration in the United States, with special emphasis upon organization and the relation of administration to the other branches of government. (Howard.)

Pol. Sci. 112 s. Public Personnel Administration (3)—Three lectures. Prerequisite, Pol. Sci. 111 f or consent of instructor.

A study of public personnel practices in the various jurisdictions of the United States and their comparison with practices in certain European countries. (Howard.)

Pol. Sci. 113 f. Municipal Government and Administration (3)—Three lectures. Prerequisite, Pol. Sci. 4.

A detailed study of selected problems of municipal government, such as housing, health, zoning, fire and police, recreation and planning. Course includes a visit to Baltimore to observe the agencies of city government at work. (Kline.)

Pol. Sci. 117 f, 118 s. Government at Work (3, 3)—Three lectures. Prerequisites, Pol. Sci. 1 and consent of instructor.

This course consists of visits to various administrative agencies of the national government, supplemented by reading assignments on the work of the agencies visited. (Howard.)

Pol. Sci. 121 f. Political Parties and Public Opinion (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A descriptive and critical examination of the party process in government: nominations and elections, party expenditures, political leadership, the management and conditioning of public opinion. (Bone.)

Pol. Sci. 123 f. Government and Business (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A general survey of governmental activities affecting business, with special emphasis upon recent developments; federal and state assistance to and regulation of business in their historical and legal aspects; government ownership and operation. (Bone.)

Pol. Sci. 124 s. Legislatures and Legislation (3)—Three lectures. Prerequisite, Pol. Sci. 4.

A comprehensive study of the legislative process, bicameralism, the committee system and the lobby, with special emphasis upon the legislature of Maryland. The course includes a visit to Washington to observe Congress at work. (Bone.)

Pol. Sci. 131 f. Constitutional Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A systematic inquiry into the general principles of the American constitutional system, with special reference to the role of the judiciary in the interpretation and enforcement of the Constitution, the position of the states in the federal system, state and federal powers over interstate and foreign commerce, and the rights of citizens and of accused persons. (Kline.)

Pol. Sci. 134 s. Administrative Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A study of the principles involved in the expansion of the discretion of administrative boards and commissions, including an analysis of their functions, their powers over private rights, their procedure in making findings, the enforcement of their rules and orders and judicial control of their actions. (Kline.)

Pol. Sci. 136 s. Elements of Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

Development of law and legal systems; comparison of methods and procedure in making and enforcing law in Roman and common law systems; consideration of fundamental legal concepts; contribution and influence of modern schools of legal philosophy in relation to law and government. (Walther.)

Pol. Sci. 138 s. Law Enforcement (2)—Prerequisite, Pol. Sci. 1.

A survey of the organization and operation of the agencies involved in the administration of criminal justice, with special reference to the organization and methods of police departments, problems of organized crime and its suppression, the role of the prosecutor and the courts, and the interrelations between these agencies. (Not given in 1940-41.) (Kline.)

Pol. Sci. 141 f. History of Political Theory (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

A survey of the principal political theories set forth in the works of writers from Plato to Bentham. (Walther.)

Pol. Sci. 142 s. Recent Political Theory (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

A study of recent political ideas, with special emphasis upon theories of democracy, socialism, communism, fascism, etc. (Walther.)

For Graduates

Pol. Sci. 201 f. Seminar in International Organization (2).

A study of the forms and functions of various international organizations. Special attention is given to the work of the World Court. (Steinmeyer.)

Pol. Sci. 202 s. British Empire (3).

A study of the constitutional development of the British Dominions, with particular attention to the present inter-imperial relationship. (Steinmeyer.)

Pol. Sci. 205 y. Seminar in American Imperialism (4).

Individual reports on selected topics, with special reference to the causes and methods of recent American imperialistic policy. (Not offered in 1940-41.) (Steinmeyer.)

Pol. Sci. 211 f. Federal-State Relations (3).

A study of the American federal system as affected by recent developments in such fields as agriculture, education, social security, public works, transportation, etc. (Howard.)

Pol. Sci. 214 s. Problems in Public Administration (2).

Reports on topics assigned for individual research in the field of national and state administration. (Howard.)

Pol. Sci. 216 s. Problems of Government in Metropolitan Regions (2).

Analysis of some metropolitan areas and some of the most pressing problems arising out of the existence of dense populations spread over a large number of small governmental units having similarly inadequate powers and facilities to cope with the problems involved; discussion of possible solutions. (Kline.)

Pol. Sci. 221 f. Seminar in Public Opinion (2).

Reports on topics assigned for individual research in the field of public opinion. (Bone.)

Pol. Sci. 222 s. Psych. 280 s. Analysis of Propaganda (3)—Two lectures and one discussion. Prerequisite, consent of instructors.

Analytical approach to modern propaganda, including study of organizations which employ propaganda, of techniques in actual use in disseminating propaganda, and of attempts at measuring the effects of propaganda. Responsibility for instruction is shared by the Department of Political Science and the Department of Psychology. (Bone, Jenkins.)

Pol. Sci. 235 f. Problems in Public Law (2).

Readings and reports on topics selected with reference to the needs of the individual student; special attention will be given to methods of research in legal materials and to problems in interstate commerce, police power, due process and equal protection. (Kline.)

Pol. Sci. 251 f. Bibliography of Political Science (2).

This course is intended to acquaint the student with the literature of the various fields of political science and to instruct him in the use of government documents. (Staff.)

Pol. Sci. 261. Research in Political Science (2-4)—Credit according to work accomplished. (Staff.)

POULTRY HUSBANDRY

PROFESSORS JULL, BYERLY; ASSOCIATE PROFESSORS GWIN, BIRD, QUIGLEY.

P. H. 1 f. Poultry Production (3)—Two lectures and one two-hour laboratory.

This is a general course designed to acquaint the student with modern methods of poultry husbandry. Principles of incubation, brooding, egg production, marketing, and breed improvement are discussed.

P. H. 2 s. Poultry Management (3)—Two lectures and one laboratory.

Material will be presented in this course to acquaint the student with modern methods of feeding, housing, sanitation, and organization necessary to the profitable operation of a poultry establishment.

P. H. 3 f. Poultry Biology (1-2)—One lecture and one laboratory. Prerequisites, P. H. 1 f and 2 s or equivalent.

The elementary anatomy of the fowl, selection for eggs and meat production and for breed standards are studied. Judging teams for intercollegiate competitions are selected from members of this class.

For Advanced Undergraduates and Graduates

P. H. 101 s. Poultry Genetics (3)—Three lectures, demonstration, and quiz periods. Prerequisites, P. H. 3 f and Gen. 101 f.

The inheritance of morphological and physiological characters of poultry are presented. Inheritance of factors related to egg and meat production and quality are stressed. (Staff.)

P. H. 102 s. Poultry Nutrition (2)—One laboratory; one lecture, demonstration and quiz period. Prerequisites, P. H. 1 f and 2 s.

The nutritive requirements of poultry and the nutrients which meet those requirements are presented. Feed cost of poultry production is emphasized. (Bird.)

Poultry Hygiene, see Veterinary Science, V. S. 107 s.

P. H. 104 f, 105 s. Poultry Products Marketing Problems (2, 2)—Two one-hour lecture, demonstration and quiz periods. Prerequisites, P. H. 1 f and 2 s.

This course includes material on egg and meat quality, commercial grades, relation of transportation and distribution to quality and methods of marketing, especially as related to quality. (Gwin.)

Preservation of Poultry Products, see Bacteriology, F. Tech. 108 s.

P. H. 106 f. Poultry Physiology (1-2)—One lecture; one laboratory. Prerequisite, P. H. 101 s.

The physiology of development and incubation of the embryo, especially physiological pathology of the embryo in relation to hatchability, is presented. Physiology of growth and the influence of environmental factors on growth and development are considered. (Byerly.)

P. H. 107 f. Poultry Industrial and Economic Problems (2)—Two lectures.

This course presents the relation of poultry to agriculture as a whole and its economic importance. Consumer prejudices and preferences, production, transportation, storage, and distribution problems are discussed. Trends in the industry, surpluses and their utilization, poultry by-products, and disease problems, are presented. (Staff.)

P. H. 108 s. Commercial Poultry Management (2)—Two one-hour lecture, discussion, demonstration, and quiz periods weekly. Prerequisites, Ten hours of Poultry Husbandry, including 1 f and 2 s.

A symposium on finance, investment, plant layout, specialization, purchase of supplies, management problems in baby chick, egg, broiler, and turkey production, foremanship, advertising, selling, by-products, production and financial records. Prior to this course the student should have practical experience with poultry at home, on a commercial poultry farm, or under the supervision of the poultry department. (Quigley.)

For Graduates

P. H. 201 s. Advanced Poultry Genetics (3)—Three lectures. Prerequisite, P. H. 101 s or equivalent.

This course serves as a foundation for research in poultry genetics. Linkage, crossing-over, inheritance of sex, the expression of genes in development, inheritance of resistance to disease, and the influence of the environment on the expression of genetic capacities are considered. (Jull.)

P. H. 202 f. Advanced Poultry Nutrition (3)—Two lectures; one laboratory. Prerequisite, P. H. 102 f or equivalent.

Deficiency diseases of poultry are considered intensively. Vitamin, mineral, and protein deficiencies are given special consideration. Synthetic diets, metabolism, and the physiology of digestion, growth curves and their significance, and feed efficiency in growth and egg production are studied. (Bird.)

P. H. 203 s. Physiology of Reproduction of Poultry (3)—One laboratory; two lectures.

The role of the endocrines in reproduction, especially with respect to egg production, is considered. Fertility, sexual maturity, broodiness, molting, egg formation, ovulation, deposition of egg envelopes, and the physiology of oviposition are studied. (Byerly.)

P. H. 204 f and s. Seminar (1).

Reports of current researches by staff members, graduate students, and guest speakers are presented. (Staff.)

P. H. 205 f and s. Poultry Literature (1-4).

Readings on individual topics are assigned. Oral and written reports required. Methods of analysis and presentation of scientific material are taught. (Staff.)

P. H. 206. Research in Poultry—Credit in accordance with work done.

Practical and fundamental research with poultry may be conducted under the supervision of staff members toward the requirements for the degrees M. S. and Ph. D. (Staff.)

PSYCHOLOGY

PROFESSORS JENKINS, SPROWLS; ASSOCIATE PROFESSOR BELLOWS; ASSISTANT PROFESSOR CLARK; DR. MACMILLAN.

Psychological Testing Bureau

The staff of the Department of Psychology maintains a bureau for vocational and educational guidance on the basis of adequately standardized psychological tests. The services of the bureau are available without charge to students.

Psych. 1 f and s. Introduction to Psychology (3)—Two lectures and one discussion. Open to sophomores.

A general introduction to typical problems upon which psychologists are at work. Review of experimental investigations of the more fundamental phases of human behavior.

Psych. 2 f. Applied Psychology I (3)—Two lectures and one discussion. Prerequisite, Psych. 1.

Application of controlled observation to practical psychological problems in methods of studying, in vocational orientation, in highway safety, and in the professions.

Psych. 3 s. Applied Psychology II (3)—Two lectures and one discussion. Prerequisite, Psych. 1.

Application of controlled observation to practical psychological problems in business and industry, including industrial selection, methods of production, advertising, selling, and market research.

Psych. 4 f. Psychology for Students of Commerce (3)—Two lectures and one discussion. Open only to students in economics or business administration.

Topics in applied psychology which relate to practical problems in business and industry viewed from the standpoint of controlled observation.

Psych. 10 f and s. Educational Psychology (3)—Two lectures and one discussion. Open to juniors and seniors only. Required of students in Education.

Experimental studies of basic psychological problems encountered in education; measurement and significance of individual differences, learning, motivation, transfer of training, etc.

For Advanced Undergraduates and Graduates

Psych. 110 f or s. Advanced Educational Psychology (3)—Prerequisite, Psych. 10.

More advanced treatment of the solution of basic psychological problems in education by methods of controlled observation. (Not given in 1940-41.) (Sprowls.)

Psych. 120 f. Psychology of Individual Differences (3)—Prerequisite, Psych. 1 or 10.

The occurrence, nature, and causes of psychological differences between individuals, methods of measuring these differences, and their importance in education, business and industry. (Macmillan.)

Psych. 121 s. Social Psychology (3)—Prerequisite, Psych. 1.

Results of researches on behavior in social settings; experimental studies of the effects of group membership, of the family, and of current social forces. (Jenkins.)

Psych. 125 f. Child Psychology (3)—Prerequisite, Psych. 1 or 10.

Experimental analysis of child behavior; motor and intellectual development, emotions, social behavior, parent-child relationships, and problems of the growing personality. (Clark.)

Psych. 130 f and s. Mental Hygiene (3)—Two lectures and one clinic. Prerequisite, Psych. 1 or 10.

The more common deviations of personality; typical methods of adjustment. (Sprowls.)

Psych. 131 s. Abnormal Psychology (3)—Two lectures and one clinic. Prerequisite, Psych. 130.

The nature, occurrence, and causes of psychological abnormality with emphasis on the clinical rather than theoretical aspects. (Sprowls.)

Psych. 140 f. Psychological Problems in Market Research (3)—Prerequisite, Psych. 3 s or permission of instructor.

Use of methods of controlled observation in determining public reactions to merchandise, and in measuring the psychological influences at work in particular markets. (Jenkins.)

Psych. 141 s. Psychology in Advertising and Selling (3)—Prerequisite, Psych. 3 s.

Experimental and statistical studies of psychological aspects of advertising; methods of measuring the effectiveness of advertising; the role of such factors as attention, memory, belief, etc.; problems associated with specific advertising media. (Jenkins.)

Psych. 150 s. Psychological Tests and Measurements (3)—Two lectures and one laboratory period. Prerequisite, Psych. 120 f or permission of instructor.

Critical survey of psychological tests used in vocational orientation and in industry with emphasis on methods by which such tests are validated; practice in the use of tests and the interpretation of test data. (Bellows.)

Psych. 155 s. Psychological Problems in Vocational Orientation (3)—Prerequisite, Psych. 150 s or equivalent.

Experimental development and use of the vocational counseling interview, aptitude tests, and related techniques for the occupational orientation of youth. (Bellows.)

Psych. 160 f. Industrial Psychology (3)—Prerequisite, Psych. 3 s or permission of instructor.

Controlled observation applied to psychological problems in industrial production, including psychological effects of conditions and methods of work. (Macmillan.)

Psych. 161 s. Personnel (3)—Prerequisite, Psych. 3 s or permission of instructor.

Psychological problems involved in the management of personnel in modern business and industry. A consideration of employee selection, measures of ability, methods of developing and maintaining personal efficiency and morale. (Clark.)

Psych. 162 f. Advanced Personnel Psychology (3)—Lectures and field periods. Prerequisite, Psych. 161 f.

Actual participation in industrial and governmental personnel programs, together with periodic discussions of the principles involved. Intended primarily for students planning to enter personnel administration. (Clark.)

Psych. 170 f. Legal Psychology (3)—Prerequisite, Psych. 121 s or permission of instructor.

Interpretation of researches pertaining to accuracy of observation and of testimony, psychological aids in determination of guilt, and treatment of the offender. (Sprowls.)

Psych. 190 y. Techniques of Investigation in Psychology (6)—Three periods of practice and discussion. Prerequisite, Psych. 3 s.

A consideration of quantitative methods in psychology, the design of experiments, and actual practice in various methods of obtaining data and in treating these results for interpretation. (Macmillan.)

Psych. 195 f or s. Minor Problems in Psychotechnology (2-3)—Credit apportioned to work accomplished. Prerequisite, Major senior standing and consent of department head. (May not be offered for credit toward graduate degrees.)

Conduct of original research under the supervision of some member of the staff. Satisfactory completion of this project may lead to publication in one of the standard psychological journals. (Staff.)

For Graduates

Psych. 200. Research in Psychotechnology (4-6)—Credit apportioned to work accomplished. (Staff.)

Psych. 210 y. Seminar in Educational Psychology (6)—An advanced course for teachers and prospective teachers.

Systematic approach to advanced problems in educational psychology based upon specific experimental contributions. (Sprowls.)

Psych. 240 y. Seminar in Current Psychotechnological Problems (6)—An advanced course for students pursuing major graduate studies.

A systematic analysis of recent contributions in selected psychotechnological fields. (Jenkins.)

Psych. 245 f. Advanced Psychological Problems in Market Research (3)—Graduate study of the specialized problems and techniques employed by the psychologist in market research. The course will attempt to combine systematic theory with actual practice in dealing with these research problems. (Jenkins.)

Psych. 250 y. Participation in Testing Clinic (4-6)—Credit apportioned to work accomplished.

Actual practice in the administration of tests of aptitude, interest, and achievement and interpretation of test data in the course of routine operation of the testing bureau. (Bellows.)

Psych. 251 s. Development and Validation of Psychological Tests (3)—Prerequisite, Psych. 150 s.

Methods for evaluating criteria and for the analysis and combination of test and predictor items. (Bellows.)

Psych. 280 s—Pol. Sci. 222 s. Analysis of Propaganda (3)—Two lectures and one discussion. Prerequisite, consent of instructors.

Analytical approach to modern propaganda, including study of organizations which employ propaganda, of techniques in actual use in dissemination of propaganda, and of attempts at measuring the effects of propaganda. Responsibility for instruction is shared by the Department of Political Science and the Department of Psychology. (Bone, Jenkins.)

SOCIOLOGY

PROFESSOR JOSLYN; ASSOCIATE PROFESSOR WILSON; ASSISTANT PROFESSOR DODSON; DR. JACOBI, DR. HODGE, MR. WOODWORTH.

Soc. Sci. 1 y. Introduction to the Social Sciences (6)—Two lectures, one discussion. Open to freshmen and sophomores only.

The purpose of this course is to give the student an understanding of the processes of change taking place in our society and the maladjustments resulting from some of these changes. Emphasis will be placed upon an

analysis of present day social problems: their causes, social implications, and suggested approaches to their solution.

Soc. 1 f and s. Principles of Sociology (3)—Two lectures, one discussion. Prerequisite, sophomore standing.

An analysis of society and the basic social processes; characteristics of collective behavior; typical social organizations; the development of personality; the relation of the individual to the group; social products; social interaction; social change.

Soc. 2 s. Comparative Sociology (2)—Two lectures. Prerequisite, sophomore standing.

A comparative analysis of primitive and civilized societies; resemblances and differences in their social life and cultures; factors underlying these resemblances and differences; significance of findings with reference to fundamental principles of sociology.

For Advanced Undergraduates and Graduates

Soc. 101 f. Social Organization (2)—Two lectures. Prerequisite, Soc. 1. Required of all sociology majors.

A systematic analysis of the forms of organization common to basic social institutions; variations of these forms in time and space; classification of forms of organization; conditioning factors of organizational forms; application of findings to contemporary problems. (Joslyn.)

Soc. 102 f. Rural Sociology (3)—Two lectures, one discussion. Each graduate student will be required to prepare a term paper.

The structure and functions of rural communities, ancient and modern; the evolution of rural culture; rural institutions and their problems; the psychology of rural life; composition and characteristics of the rural population; relation of rural life to the major social processes; the social aspects of rural planning. (Dodson.)

Soc. 103 s. Rural Community Organization (3)—Two lectures, one discussion. Prerequisite, Soc. 102 f.

An analysis of the rural community and its component social groups; ecological foundations of the rural community; determining the boundaries of community areas; the structure and functions of special interest groups; leadership and followership in community activities. (Dodson.)

Soc. 104 s. Urban Sociology (3)—Two lectures, one discussion. Each graduate student will be required to prepare a term paper.

The origin and growth of cities; composition and characteristics of city populations; the social ecology of the city; social relationships and groupings in the city; the organization of urban activities; social problems of the city; the planning and control of urban development. (Joslyn.)

Soc. 105 f. Population Problems (3)—Two lectures, one discussion. Prerequisite, Soc. 1.

Population growth in the United States; contemporary trends in fertility and mortality; differential fertility and mortality; changes in the composition of our population and their significance; population migration in modern times; qualitative problems of population; theories of population growth and decline. (Joslyn.)

Soc. 106 s. Regional Sociology (3)—Two lectures, one discussion. Prerequisite, Soc. 1.

An analysis of American society in terms of regional factors and their impact upon social institutions. Problems to be covered will include: the meanings and implications of regionalism; criteria of regional differentiation; types of regions in the United States; problems peculiar to these regions; metropolitan, rural, cultural, and administrative regionalism; regional planning and development. (Hodge.)

Soc. 107 f. Ethnic Minority Groups (2)—Two lectures. Prerequisite, Soc. 1 or consent of instructor.

Theoretical aspects of ethnic group relations; cultural backgrounds and characteristics of immigrant groups in America; significant factual data concerning minority peoples; relevant social processes; effects of cultural contacts upon personality and social structure. (Wilson.)

Soc. 108 s. The Family (3)—Two lectures, one discussion. Prerequisite, Soc. 1.

Anthropological and historical backgrounds; biological, economic, psychological, and sociological bases of the family; the role of the family in personality development; family and society; family disorganization; family adjustment and social change. (Wilson.)

Soc. 120 f. Social Pathology (3)—Two lectures, one discussion. Prerequisite, Soc. 1 or consent of instructor.

A study of social maladjustments which represent deviations from generally accepted norms. Problems to be covered will include: poverty, unemployment, family disorganization, crime and delinquency, suicide, and the misuse of leisure time. (Joslyn.)

Soc. 121 f. Criminology and Penology (3)—Two lectures, one discussion. Prerequisite, Soc. 120 f.

The nature and extent and cost of crime; causative factors; historical methods of dealing with criminals; apprehension of alleged criminals; penal institutions; other means of caring for convicted persons; the prevention of crime. (Wilson.)

Soc. 122 s. Juvenile Delinquency (3)—Two lectures, one discussion. Prerequisite, Soc. 121 f.

The nature of delinquency; the relations between delinquency and crime; the delinquent child as a social problem; causative factors in delinquency;

the juvenile court movement; disposition and treatment of delinquent cases as a form of social work; evaluation of contemporary programs of crime prevention. (Not offered in 1940-41.) (Wilson.)

Soc. 123 f. The Sociology of Leisure (3)—Two lectures, one discussion. Prerequisite, Soc. 120 f or consent of instructor.

This course deals primarily with the sociological implications of leisure time and its uses. Topics to be considered will include: the meaning and significance of leisure; the conditioning factors of leisure time and its uses; the changing uses of leisure; leisure and personality; theories of play and recreation; commercial, public, and voluntary forms of recreation; planning of leisure time activities. (Hodge.)

Soc. 124 s. Introduction to Social Work (3)—Two lectures, one discussion. Prerequisite, Soc. 120 f.

The theory of social work; social case work, generic and specific; procedure and techniques in social case work; principles of social diagnosis; present day types of social work; administration of public and private welfare agencies. Field trips will be made to representative social agencies. (Joslyn.)

Soc. 130 f. Recent Social Thought (3)—Three discussions. Prerequisites, Soc. 1 and 101 f. Intended mainly for sociology majors and minors.

A critical study of the leading schools of sociological thought since 1800. (Not offered in 1940-41.) (Wilson.)

Soc. 150 s. Field Practice in Social Work (2)—Open only to sociology majors upon consent of instructor. Enrollment restricted to available opportunities.

Supervised field work of various types undertaken during the summer months and suited to the needs of the individual students. (Joslyn.)

For Graduates

Soc. 200 f. Seminar in Methodology (3)—Two lectures, one discussion. Required of all graduate students in sociology.

A study of fundamental methodological problems in sociology. Reference will be made to the works of Rickert, Windelband, Pareto, Max Weber, W. I. Thomas, and others. (Joslyn, Wilson.)

Soc. 201 y. Systematic Sociology (6)—Two lectures, one discussion.

A study of the works of the following systematic thinkers in sociology: Pareto, Simmel, Vierkandt, Von Wiese, Max Weber, Tonnies, Durkheim, Sorokin. (Joslyn.)

Soc. 202 s. Comparative Sociology (3)—Two lectures, one discussion.

An intensive study of selected problems bearing on the significance of resemblances and differences shown in the social life and cultures of primitive as compared with civilized peoples. (Wilson.)

Soc. 203 s. Community Organization (3)—Two lectures, one discussion.

Special problems in the field of rural, village, suburban, and urban community organization. Studies will be made of the composition, structure, and functioning of particular communities. (Dodson.)

Soc. 204 f. Rural-Urban Sociology (3)—Two lectures, one discussion.

A study of the differences between rural and urban societies with reference to composition of population, social mobility, social relationships, differentiation of social groups, standards of living, mores and attitudes, and various pathological conditions. (Dodson.)

Soc. 205 s. Regional Sociology (3)—Two lectures, one discussion.

A comparative analysis of regional trends in the United States and various foreign countries. Topics to be covered will include: the meanings and implications of regionalism; historical origins of regionalism; demarcation of regions in the United States on the basis of geographic, economic, demographic, political, and cultural criteria; characteristics and problems peculiar to each region; the role of local, state, and national administrative units in regional planning and development. (Hodge.)

Soc. 206 f. Population Problems (3)—Two lectures, one discussion.

An intensive study of selected problems in the fields of population growth, fertility and mortality, population composition, and population migration. (Joslyn.)

Soc. 207 s. Occupational Sociology (3)—Two lectures, one discussion.

Structural and functional significance of the division of labor in society; typologies and special problems of occupational organization; sociological differentiation of major occupations; criteria of a profession; the role of professionalism in social organization; methodology for the study of professions; detailed analysis of several leading professions. (Wilson.)

Soc. 208 s. Social Stratification (3)—Two lectures, one discussion.

A study of differences of status in basic institutions and organizations of contemporary society; factors underlying these differences; forms and criteria of social selection; trends in vertical mobility and stratification; theories of social stratification. (Joslyn.)

Soc. 221 f. Criminology and Penology (3)—Two lectures, one discussion.

A study of some of the principal theoretical problems of criminology with major emphasis upon a methodological analysis of leading contemporary approaches. (Wilson.)

Soc. 250. Sociological Research (2-4)—Credit proportioned to work accomplished.

Individual research projects involving either field work or analysis of compiled data. (Staff.)

SPEECH

PROFESSOR EHRENSBERGER; ASSISTANT PROFESSOR PROVENSEN; MR. STRAUSBAUGH, MRS. VERNON, MR. WILLIAMS, MR. HUTCHESON, MR. WIKSELL.

Speech 1 y. Reading and Speaking (2)—One lecture.

The principles and techniques of oral expression, visible and audible; the preparation and delivery of short original speeches; impromptu speaking; reference readings, short reports, etc. Opportunities of speech clinic open to students.

Speech Clinic—No credit.

Speech examinations; training in speech and voice; remedial work in minor speech difficulties. The work of the clinic is conducted in individual conferences and in small group meetings. Hours are arranged by consultation with the respective speech instructors.

Speech 2 y. Fundamentals of Speech (4)—Two lectures.

Studies in the bases and mechanics of speech. This course does not deal with public speaking exclusively; it is concerned with the whole speech function in private as well as public manifestations. It is given primarily for students who expect to do extensive work in speech. Any student electing this course may take it concurrently with or after completing Speech 1 y.

Speech 3 f, 4 s. Advanced Public Speaking (2, 2)—Two lectures.

Advanced work on basis of Speech 1 y, with special applications and adaptations. At each session of the class a special setting is given for the speeches—civil, social, and political organizations, etc., and organizations in the fields of the prospective vocations of the different students. When a student has finished this course he will have prepared and delivered one or more speeches which would be suitable and appropriate before any and all bodies that he would probably have occasion to address in after-life.

Speech 5 f. Oral Technical English (2)—Two lectures. Required of all sophomore engineering students.

The preparation and delivery of speeches, reports, etc., on both technical and general subjects. This course is especially adapted to the needs of engineering students.

Speech 6 y. Advanced Oral Technical English (2)—One lecture. Required of all junior engineering students.

This course is a continuation of Speech 5 f. Special emphasis upon engineering projects that fall within the student's own experience. Class discussion and criticism of all speeches and reports.

Speech 7 y. Advanced Oral Technical English (2)—One lecture. Senior seminar. For senior engineering students only.

Advanced work on the basis of Speech 6 y. Work not confined to class room. Students are encouraged to deliver addresses before different bodies in the University and elsewhere.

Speech 9 f, 10 s. Extempore Speaking (1, 1)—One lecture.

Much emphasis on the selection and organization of material. Class exercises in speaking extemporaneously on assigned and selected subjects. Newspaper and magazine reading essential. Training in parliamentary law.

Speech 11 f, 12 s. Argumentation (2, 2)—Two lectures.

This course stresses not formal debating, but forms of persuasion which will be useful in business and professional life. It deals, to a great extent, with ways in which human beliefs and behavior may be influenced by logical discussion.

Speech 13 f and s. Oral Reading (3)—Three lectures.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

For Advanced Undergraduates

Speech 101 y. Radio Speaking (4)—Two lectures.

A laboratory course dealing with the various aspects of modern broadcasting. Practice in program planning, continuity writing, announcing, news reporting, etc. Actual participation in broadcasting at station WJSV in Washington. This course is under the supervision of the Columbia Broadcasting System and the speech department. Admission by audition or consent of the instructor. Laboratory fee, $2.00 per semester.

(Ehrensberger.)

Speech 102 f. Voice and Diction (3)—Three lectures.

This course is designed to provide the student with an opportunity to improve his articulation and phonation. Study and demonstration of speech sound production, physics of sound, attributes of voice, the breathing mechanism, the larynx and the ear are combined with intensive drills in articulation and voice production. (Hutcheson.)

Speech 103 s. Speech Pathology (3)—Three lectures.

The aim of this course is to familiarize the student with causes, nature, symptoms, and treatment of common types of speech disorders. Emphasis is placed upon the remedial measures employed in the treatment of minor speech disorders. (Hutcheson.)

STATISTICS

PROFESSOR KEMP; LECTURER RIGGLEMAN; MR. SHIRLEY, MR. MULLIN.

Stat. 14 f. Elements of Statistics (3)—Lectures, recitations, and laboratory. Organized for students in Economics and Business Administration.

The purpose of this course is to give the student a knowledge of the methods of collecting, analyzing, and presenting business and economic numerical data, and, through laboratory work, to provide practice in the use of such methods. The course covers collection of data; hand and machine tabulation; graphic charting; statistical distributions; averages; index numbers; dispersion and skewness; the normal curve; sampling; and simple correlation. The practical application of these methods as aids in solving business problems is emphasized throughout the course.

Stat. 15 s. Economic Statistics (3)—Lectures, recitations, and laboratory.

In this course, time series, secular trends, seasonal variations, business cycles, error, partial correlation, rectilinear and curvilinear multiple correlation and regression, analysis of variance and covariance are studied and applied in business forecasting, budgeting, population and purchasing power investigations, production and labor surveys, time and motion studies, marketing and advertising analyses, real estate investigation, investment analyses, banking operations, management, and executive control.

For Advanced Undergraduates and Graduates

Stat. 111 f. Biological Statistics (2)—Two lectures.

Organized for students in biology. A study of expressions of type, variability, correlation, regression, error and significance of differences. (Kemp.)

Stat. 112 s. Advanced Biological Statistics (2)—Two lectures. Prerequisite, Stat. 111 f.

A study of error, multiple and partial correlation, predictive formulae, empirical curves, analyses of variance and covariance. (Kemp.)

Stat. 116 s. Statistical Design (2)—Two lectures. Prerequisite, Stat. 15 s or 112 s.

A study of the principles of logical design for investigations when the resulting data are to be subjected to statistical analysis. Methods and uses of randomization, factorial design, and confounding are considered in some detail. (Kemp.)

Stat. 120. Problems (2-4)—Credit in accordance with work done.

To acquire training and experience in independent statistical analysis, each student will select an approved problem for organization, analysis, and presentation of results. (Staff.)

For Graduates

Stat. 208. Special Problems (1-4)—Credit in accordance with work done.

Each student registered in this course will choose a relatively complex problem for organization, analysis, and presentation of results. (Staff.)

VETERINARY SCIENCE

PROFESSORS WELSH, BRUECKNER; ASSOCIATE PROFESSORS CRAWFORD, DEVOLT; ASSISTANT PROFESSOR DAVIS.

For Advanced Undergraduates and Graduates

V. S. 101 f. Comparative Anatomy and Physiology (3)—Three lectures.

Structure of the animal body; abnormal as contrasted with normal; interrelationship between the various organs and parts as to structure and function; comparative study of herbivora, carnivora, and omnivora. (Crawford.)

V. S. 102 s. Animal Hygiene (3)—Three lectures.

Care and management of domestic animals, with special reference to maintenance of health and resistance to disease; prevention and early recognition of abnormal conditions; general hygiene; sanitation; infections; epizootics; enzootics; internal and external parasites; first aid. (Crawford.)

V. S. 103 f. Hematology (2)—Two laboratories.

Physiologic, pathologic, and diagnostic significance of changes in blood; taking samples; estimating the amount of hemoglobin; color index; numerical count of erythrocytes and leucocytes; study of red cells, and leucocytes in fresh and fixed stained preparations; differential count of leucocytes; vital staining; sources and development of the formed elements of blood; pathological forms and counts. (Welsh.)

V. S. 104 s. Urinalysis (2)—Two laboratories. Junior year. Bact. 1 desirable.

Physiologic, pathologic, and diagnostic significance of kidney excretions, use of clinical methods including microscopic examination for casts, cells, blood, parasites, bacteria, and interpretation of results. (Brueckner.)

V. S. 105 f. Pathological Technic (3)—Three laboratories. Junior year. Bact. 1 desirable.

Examination of fresh material; fixation; decalcification; sectioning by free hand and freezing methods; celloidin and paraffin embedding and sectioning; general staining methods. (Brueckner.)

V. S. 106 s. Pathological Technic (continued) (2-5)—Laboratory course. Junior year. Prerequisite, consent of instructor.

Special methods in pathological investigations and laboratory procedures as applied to clinical diagnosis. (Brueckner.)

V. S. 107 s. Poultry Hygiene (2)—Two lectures. Senior year. Prerequisites, Bact. 1, P. H. 106 f.

Study of causes, symptoms, dissemination, life cycle, seasonal appearance, methods of control and eradication of various bacterial, protozoan and virus diseases of poultry, including internal and external parasites. (DeVolt, Davis.)

V. S. 108 f. Avian Anatomy (3)—Two lectures; one laboratory period. Prerequisite, Zool. 1 s. Open only to majors in Poultry Husbandry.

A study of the gross and microscopic structure of the body of the domestic fowl. The lectures include frequent references to physiological processes. The laboratory provides for a study of systematic anatomy by dissection work combined with demonstrations. The course is designed to meet the needs of the student in poultry husbandry. (DeVolt.)

For Graduates

V. S. 201 f or s. Animal Disease Problems (2-6).—Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor. Laboratory and field work by assignment. (Welsh.)

V. S. 202. Animal Disease Research (2-6)—Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor. (Staff.)

ZOOLOGY

PROFESSOR TRUITT; ASSOCIATE PROFESSOR PHILLIPS; ASSISTANT PROFESSOR BURHOE; DR. NEWCOMBE, DR. HARD, MR. STULL, MR. SHAY, MISS TOMLINSON, MR. SHEPHERD, MR. TORNETTA, MR. GREENFIELD.

Zool. 1 s. General Zoology (4)—Two lectures; two laboratories.

An introductory course, which is cultural and practical in its aim. It deals with the basic principles of animal development, structural relationships, and activities, a knowledge of which is valuable in developing an appreciation of the biological sciences. Typical invertebrates and a mammalian form are studied. Laboratory fee, $5.00.

Zool. 2 f. Introductory Zoology (3)—Two lectures; one demonstration.

A course for students desiring a general knowledge of the principles underlying the growth, development, and behavior of animals, including man. Laboratory fee, $3.00.

Zool. 3 y. Fundamentals of Zoology (8)—Two lectures; two laboratories.

A thorough study of the anatomy, classification and life history of representative invertebrate and vertebrate forms. This course satisfies the freshman pre-medical requirements in biology. Freshmen who intend to choose zoology as a major should register for this course. Laboratory fee, $5.00 per semester.

Zool. 4 f. Comparative Vertebrate Morphology (3)—One lecture; two laboratories. Prerequisite, one course in zoology.

A comparative study of selected organ systems in certain vertebrate groups. Required of students whose major is zoology, and of premedical students. Laboratory fee, $5.00.

Zool. 5 s. Economic Zoology (2)—Two lectures. Prerequisite, one course in zoology.

The content of this course centers around the problems of preservation, conservation, control, and development of economic wild life, with special reference to Maryland. The lectures are supplemented by assigned readings and reports.

Combined with Zool. 6 s, this course should form a part of the basic training for professional foresters, game proctors, and conservationists.

Zool. 6 s. Field Zoology (3)—One lecture; two laboratories. Prerequisites, one course in zoology and one in botany.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields, and streams, with emphasis on the higher invertebrates and certain vertebrates, their breeding habits, environment, and modes of living. Intended for teachers of biology, and also for those who have a special interest in nature study and outdoor life.

Zool. 8 f. Invertebrate Morphology (4)—Two lectures; two laboratories. Required of students whose major is zoology.

This course consists in a study of the structure and relationships of selected invertebrate groups. Laboratory fee, $5.00.

Zool. 12 f. Animal Histology (3)—One lecture; two laboratories. Prerequisite, one course in zoology.

A study of animal tissues and the technic involved in their preparation for microscopic examination. Laboratory fee, $5.00.

Zool. 15 f. Human Anatomy and Physiology (4)—Two lectures; two laboratories. Prerequisite, one course in zooolgy. Required of students whose major is physical education, and of those preparing to teach general science or biology.

For students who desire a general knowledge of human anatomy and physiology. Emphasis is placed upon the physiology of digestion, circulation, respiration, and reproduction. Laboratory fee, $5.00.

Zool. 16 s. Human Physiology (3)—Two lectures; one laboratory. Not open to freshmen. Primarily for home economics students.

Similar to Zool. 15 f. Laboratory fee, $5.00.

Zool. 20 s. Vertebrate Embryology (3)—One lecture; two laboratories. Prerequisite, one course in zoology. Required of students whose major is zoology and of premedical students.

The development of the chick to the end of the fourth day and early mammalian embryology. Laboratory fee, $5.00.

For Advanced Undergraduates and Graduates

Zool. 101 s. Mammalian Anatomy (3)—Three laboratories. Registration limited. Permission of the instructor must be obtained before registration. Recommended for premedical students, and those whose major is zoology.

A course in the dissection of the cat or other mammal. By special permission of the instructor a vertebrate other than the cat may be used for study. Laboratory fee, $5.00. (Phillips.)

Zool. 102 s. Histological Technique (3)—One lecture; two laboratories. Registration is limited and the permission of the instructor must be obtained before registration.

The preparation of animal tissues for microscopical examination. The course is designed to qualify the student in the preparation of tissues and blood for normal and pathological study. Laboratory fee, $5.00. (Hard.)

Zool. 103 y. General Animal Physiology (6)—Two lectures; one laboratory. Prerequisites, one year of chemistry and one course in vertebrate anatomy. Registration limited to twelve, and permission of instructor must be obtained before registration.

The first semester work deals with the fundamentals of cellular and general physiology. The second semester is devoted to an application of these principles to the higher animals. Laboratory fee, $5.00 each semester. (Phillips.)

Zool. 105 f. Aquiculture (3)—Two lectures; one laboratory. Prerequisite, one course in zoology.

The course deals with the practices employed in rearing aquatic animals and the properties of natural waters which render them suitable for environmental purposes. Laboratory fee, $5.00. (Truitt.)

Zool. 106 y. Journal Club (2)—One session.

Reviews, reports, and discussions of current literature. Required of all students whose major is zoology. (Staff.)

Zool. 108 s. Animal Geography (3)—Two lectures; one laboratory. Prerequisite, one course in zoology.

This course deals with the distribution, classification, and environmental relations of animals. Several field trips are scheduled. Laboratory fee, $5.00. (Newcombe.)

Zool. 120 s. Animal Genetics (3)—Two lectures; one laboratory. Required of students whose major is zoology who do not have credit for Gen. 101 f.

The fundamental principles of heredity and variation. A consideration of the factors determining the formation and development of the characteristics of an individual and their manner of transmission through successive generations. Laboratory fee, $5.00. (Burhoe.)

Zool. 121 f. Animal Ecology (3)—Two lectures; one laboratory. Prerequisite, one course in zoology.

Animals are studied in relation to their natural surroundings. Certain environmental factors affecting growth, behavior, and distribution are analyzed by observations and experiments conducted in the field and also in the laboratory under controlled conditions. Special field excursions are made to the mountains and sea shore. Laboratory fee, $5.00. (Newcombe.)

For Graduates

Zool. 200 f. Marine Zoology (4)—Two lectures; two laboratories.

Problems in salt water animal life of the higher phyla. Laboratory fee, $5.00. (Truitt.)

Zool. 201 s. Microscopical Anatomy (4)—Two lectures; two laboratories.

A detailed study of the morphology and activity of cells composing animal tissues. Recent advances in the field of cytology are covered in lectures, assigned readings, and reports. Laboratory fee, $5.00. (Hard.)

Zool. 203 f. Advanced Embryology (4)—Two lectures; two laboratories.

Mechanics of fertilization and growth. A review of the important contributions in the field of experimental embryology and development of animals, including a consideration of tissue culture and transplantation. Laboratory fee, $5.00. (Burhoe.)

Zool. 204 f. Advanced Animal Physiology (4)—Two lectures; two laboratories.

The principles of general and cellular physiology as found in animal life. Laboratory fee, $5.00. (Phillips.)

Zool. 205 s. Hydrobiology (4)—Two lectures; two laboratories.

Biotic, physical, and chemical factors of the aquatic environment, including certain fundamental principles of oceanography. Special reference is made to the Chesapeake Bay region. Laboratory fee, $5.00. (Newcombe.)

Zool. 206. Research—Credit to be arranged. Laboratory fee, $5.00 each semester. (Staff.)

Zool. 207 y. Zoological Seminar (2). (Staff.)

CHESAPEAKE BIOLOGICAL LABORATORY

This laboratory, located in the center of the Chesapeake Bay country, is on Solomons Island, Maryland. It is sponsored by the University of Maryland in cooperation with the Maryland Conservation Department, Goucher College, Washington College, Johns Hopkins University, Western Maryland College, and the Carnegie Institution of Washington, in order to afford a center for wild life research and study where facts tending toward

a fuller appreciation of nature may be gathered and disseminated. The program projects a comprehensive survey of the biota of the Chesapeake region.

The laboratory is open throughout the year. Courses are offered for advanced undergraduate and graduate students, during a six-week summer session, in the following subjects: Economic Zoology, Invertebrates, Invertebrate Embryology, Experimental Zoology, Algae, and Diatoms. Not more than two courses may be taken by a student, who must meet the requirements of the Department of Zoology as well as those of the laboratory before matriculation. Classes are limited to eight matriculants. Students pursuing special research may establish residence for the summer, or for the entire year.

Laboratory facilities; boats of various types fully equipped with pumps, nets, dredges and other apparatus; and shallow water collecting devices are available for the work without cost to the students.

For further information about work at the Chesapeake Biological Laboratory, apply to Dr. R. V. Truitt, Director, College Park, Maryland.

SECTION IV
DEGREES, HONORS, STUDENT REGISTER

DEGREES CONFERRED, 1938-1939

HONORARY DEGREES

Doctor of Laws

HERBERT ROMULUS O'CONOR

MELVIN C. HAZEN

Doctor of Engineering

GLENN L. MARTIN

Doctor of Agriculture

CECIL WILLIS CREEL

Doctor of Science

FRED WHARTON RANKIN

Honorary Certificates in Agriculture

WILLIAM ALAN MCGREGOR

FRANK MARION SHOOK

PHILIP CALDER TURNER

THE GRADUATE SCHOOL

Doctor of Philosophy

HELEN R. BARTLETT A.B. Western Maryland, 1919 M.A. George Washington Univ., 1922	*Dissertation:* "Eighteenth century Georgia women."
FRANCES FORD BECK B.S. Smith College, 1933 M.S. University of Maryland, 1936	"Glycolysis studies on Walker Sarcoma 319."
ABNER BRENNER A.B. University of Missouri, 1929 M.S. University of Wisconsin, 1930	"The electrodeposition of copper-bismuth alloys from a perchlorate bath."
HOMER WALTER CARHART B.S. Dakota Wesleyan Univ., 1934 M.A. Univ. of South Dakota, 1935	"The structure and synthesis of phellonic acid."
FREDERICK BARKER CHANDLER B.S. University of Maine, 1928	"Mineral nutrition of the genus *Brassica* with particular reference to boron."
ARTHUR RUSSELL TAYLOR DENUES B.E. Johns Hopkins University, 1935 M.G.E. Johns Hopkins Univ., 1937	"Some aspects of the slow propagation of flame in gases with particular reference to the displacements of the mixtures giving maximum flame velocities in the combustion of methane."

		Dissertation:
MELVIN F. W. DUNKER		
B.S. in Pharmacy, University of Maryland, 1934		"Some aromatic fluorine compounds of therapeutic interest."
M.S. University of Maryland, 1936		
WALTER FULTON JEFFERS		
B.S. University of Maryland, 1935		"Studies on Caryospora putaminum (Schw.) De Not."
M.S. University of Maryland, 1937		
CHARLES SAMUEL LOWE		
B.S. George Washington Univ., 1933		"Fluorescence in inorganic analysis with special reference to (A) Photometric estimation of aluminum; (B) Detection of thorium, zinc, silver and copper."
M.S. University of Maryland, 1937		
CARROLL BLUE NASH		
B.S. George Washington Univ., 1934		"Effects of starvation and thirst on the chemical composition of rats of various ages."
M.S. University of Maryland, 1937		
RODNEY ANDREEN OLSON		
B.S. Tufts College, 1936		"The relation of protoplasmic streaming in the *Avena* coleoptile to respiration and auxin transport."
M.S. University of Maryland, 1937		
GLENN GERALD SLOCUM		
B.A. Simpson College, 1928		"Studies on food-poisoning staphylococci."
M.S. Iowa State College, 1930		
HOWARD LIVINGSTON STIER		
B.S. University of Maryland, 1932		"A physiological study of growth and fruiting of the tomato (*Lycopersicum esculentum*) with reference to the effect of certain climatic and edaphic conditions."
M.S. University of Maryland, 1937		
WOOTEN TAYLOR SUMERFORD		
B.S. in Pharmacy, University of Georgia, 1930		"A study of nitrosothymol and aminothymol with particular reference to Schiff's bases of aminothymol."
M.S. University of Georgia, 1933		
EARNEST ARTMAN WALKER		
B.S. University of Maryland, 1926		"Development of storage scab on apples."
M.S. University of Maryland, 1927		
JOHN KAVANAUGH WOLFE		
B.S. University of Maryland, 1936		"I. Surface films of cerin, friedelin, and their derivatives. II. The structure of friedonic acid."

Master of Arts

SAMUEL PRESTON CALTRIDER
ALMA EVELYN DAVIS
PAUL J. DIXON
CHARLES ABNER DOUB
CLYDE BALTZER EDGEWORTH
FRANCIS DICKERSON GRIFFITH
DAVID CHAUNCEY HOLLY
FRANCES STRICKLAND HOLMEAD
TEMPLE ROLPH JARRELL
LOUIS P. KNOX, JR.
ESTHELENE WILLIAMSON MORGAN
AAGOT FRANCINE NORDBY
MARGARET BARBARA PHILLIPS
WATSON DELAHA PHILLIPS
GUSSIE RANDALL
KATHLEEN MCCOLLUM SHEARER
LAVETA TITT
EDWARD HAROLD FREDERICK WEST
VIVIAN DORIS WISER

Master of Science

JOHN PATERSON BEWLEY
SAMUEL CLARK BILLINGS
JOHN LOWRY BOWERS
MARRIOTT WARFIELD BREDEKAMP
ARTHUR R. BUDDINGTON
CAROLINE FRANCES BURPEAU
FLOYD DALE CARROLL
EDWARD PENDLETON CARTER
ANN ELIZABETH CARVER
LAWRENCE EVERETT CRON
JOHN MILTON CROSS
REX F. DALY
ROY CARLTON DAWSON
MARY WASHINGTON FRAZER
NATHAN GAMMON, JR.
AUGUSTUS ROSSELL GLASGOW, JR.
CHARLES GOLDBERG
JAMES GLENN GRAHAM
ELSIE CATHERINE HANSON
JACK D. HARTMAN
MILDRED LOUISE HEARN
ROY ELWOOD HUFFMAN
CHARLES DAVID HYSON
AMIHUD KRAMER
ALBIN OWINGS KUHN
WILLIAM CLARENCE LEAVENWORTH
THADDEUS LEWANDOWSKI
CHARLES MORRIS LOYD
HARRY MATHESON
BERNARD PATRICK MCNAMARA
WILLIAM ANTHONY NOLTE
PERRY JACOB NOTT
JAMES MCCLAIN OSBORN
FRANK PERLMUTTER
BOURDON FRANCIS SCRIBNER
BOLAND BICKETT SHEPHERD
JOHN RAYMOND STEWART
VIRGINIA ELEANOR THOMAS
VIRGINIA TRULLINGER
EARLE B. WAGNER
MARY ELINOR WEBSTER
CHARLES BAYNARD WILLINGHAM
PHILLIP JEROME WINGATE
WINTHROP CHARLES WOLFE

COLLEGE OF AGRICULTURE

Bachelor of Science

Charles Chandlee Astle
Alva Sayrs Baker, Jr.
*Oden Bowie
Allan Harvey Brown
James Franklin Brownell
Lawrence Anthony Bruns
James Hazen Burnet
Charlotte Frances Cohen
Julian Coburn Crane
Clarence Akehurst Eck
Lawrence Sherwood Faith
Earl Wayne Fitzwater
Paul McConkey Galbreath
W. Eric Gibbs
Ewing L. Gupton, Jr.
Edward Wroth Hepburn
Elmer Heubeck, Jr.
Norborne Archeart Hite
William Edward Jarrell, Jr.
Edwin Roberts Johnson
Saburo Katsura
Wilson Wiley Kilby
Stanley I. Lapidus
Laban Robert Lowe
Richard King Lynt, Jr.
William T. Marché
O. Clifton Martin, Jr.
Frank Russell McFarland, Jr.
Thomas Edwin Miller, Jr.
Martin Hammond Muma
Robert Darby Nicholls
Joseph Kemp Peaslee
Clarence Wilson Phillips, Jr.
*Walter Benjamin Posey
Lloyd Alden Potter
James Wilmer Price, Jr.
George C. Remsberg, Jr.
John Parrish Secrest
Robert Andrew Shoemaker
*William Lawrence Sippel
Janet Irma Steinberger
Richard S. Sutton
Ellen Elizabeth Talcott
Marion Linwood Wheatley
Fred Bernhard Winkler
Detlef Jacob Witt

COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts

Bernice Carmen Aring
William Eugene Aud
Charles Blum Balmer
Elizabeth Clark Barber
John Henry Beers
Georgia Blalock
John Darby Bowman, Jr.
Ernestine Carr Bowyer
Robert Ennalls Powell Cannon
Mary Katherine Carson
*William Irwin Cayton
Irene Ruth Checket
John Thomas Clark
Carolyn Dennette Clugston
William Hutchins Cole
Roberta E. Collins
Florence Ruth Comer
Mary Elizabeth Cronin
Maurice Richard Domenici
Ralph Milo Edmonds
Lydia MacMullan Evans
Rita Virginia Faul
Moir M. Fulks
Arthur Greenfield
William Denmead Groff, Jr.
Norma Irene Hall
Sylvia Handler
Margaret Florence Hart
*Nevins Byford Hendrix, Jr.
Leo Arthur Heringman

*Degree conferred September, 1938.

Mary Elizabeth Holt
Lawrence Grant Hoover, Jr.
Vivian H. Johnson
David Robert Joseph
Ruth Leslie Keefer
James Forrest King
Victor Hartwell Laws
Mary Douglas Leard
Richard Everett Lee
Harriett Ann Levin
Ethel S. Levine
Gorton Parker Lindsay
Margaret Leslie Maslin
Elaine McClayton
Harry Wilkeson McGinniss, III
Joseph Martin Mehl, Jr.
Luther Edgar Mellen, Jr.
Beverly C. Oppenheimer
*Julius Joseph Ostroff
Herman Elwood Perdue
Katherine Lee Pollard
Daniel Travers Prettyman
Elizabeth Samson
Patricia Barbara Lee Schutz
Mary Jane Scott
Fred Lester Simon, Jr.
*John Rosman Staire, Jr.
Samuel Fort Stedman
Martin Kirk Stein
Frank Vernon Stevenson
Sara Louise Stoddard
Lula Spates Trundle
Muriel James Wahl
Gustavus Warfield
Paul Smith Wise
Frances Waggoner Wolf
Leonard Wohlstadter

Bachelor of Science

Ralph Aarons
Harry Davis Anspon
Edwin Rumsey Anthony, Jr.
Robert Amthor Barthel, Jr.
Fred Thomas Bishopp
Ralph Borlik
Charles Vernon Bowen, Jr.
Gordon Howard Campbell
Charles G. Cary
Harry Cohen
Dorothy Margaret Danforth
Henry Poincaré Dantzig
Francis Xavier Dippel
Frances Elizabeth Dorsett
Alvin Goldberg
Leon Goldman
José Grave De Peralta Ibarzábal
Frances Lucille Henry
Alvin H. Honigman
Frances Elizabeth Hunter
Robert Clark Irwin
John Stark Jacobs
Joseph Jaffe
William Richard Johnson
Edwin Kraemer
John Alexander Krynitsky
Etta Carolyn Link
Samuel B. McFarlane, Jr.
Thomas Wood Mears
Ralph Harvey Meng
Daniel M. Mermelstein
Walter Leroy Miller, Jr.
Caesar Francis Orofino
James Elwood Pitzer
Herman Saul Raisin
Samuel Winchester Reeves, III
Joseph Max Rochkind
Louis Nathan Rosenstein
Wallace Hyman Sadowsky
Howard Schneider
Elizabeth Brown Sherrill
Daniel Shmuner
Isaac Walter Silberg
Joseph Priestly Spalding
James G. Stegmaier
*Ethel B. Tolker
Susan Hays Vandervoort
Mayer Weinblatt
Edward Martin Wharton
Margaret Fentress Wilson
Jerome Louis Young
Loy Miller Zimmerman

*Degree conferred September, 1938.

COLLEGE OF COMMERCE

Bachelor of Science

ROBERT PAUL BENBOW
ROBERT JOHNSTON BRADLEY
THOMAS JAMES CAPOSSELA
ELLNER ANNETTE CORNNELL
LILLIAN ELEANOR CROCKER
ROBERT EDLAVITCH
GEORGE HENRI PEARSON EIERMAN
SIDNEY J. FENSTER
LOUIS MOHLER FREY
MARY-LOUISE GANZERT
JEROME SPILMAN HARDY
WILLIAM FRANKLIN HORTMAN, JR.
CLIFFORD EDWARD JOHNSON
HENRY CLAY JOHNSON
LEWIS ARTHUR JONES
RICHARD EUGENE KERN
JOHN WILLIAM MILLER
WILLIAM IRVING MILLER
ROBERT MORTON NEIMAN
RICHARD JAMES O'NEILL
JOHN ARTHUR PARKS, JR.
HELEN LUCILLE REINDOLLAR
CHARLES ROBERT STUP
IRA THOMPSON TODD, JR.
LAWRENCE ARCHER WOODWELL
BERNARD ALVIN YOCKELSON

SCHOOL OF DENTISTRY

Doctor of Dental Surgery

FABIUS FOX AARONSON
JOSEPH PAUL ALLEN
BERNARD BERRY AUERBACH
SAMUEL BARSAMIAN
RAYMOND BLAIS
GEORGE COFFMAN BLEVINS
JOHN MICHAEL BOZZUTO, JR.
FRANK ANDERSON BROWN
HENRY LEE CANNADAY
ANTONE RICHARD CARVALHO
RALPH CARMINE CAVALLARO
BERTRAND OSWALD CHAN-PONG
JAMES CLARKE DAVIS
NAOMI ADA DUNN
BENJAMIN DELBERT EDGAR
IRVING WILLIAM EICHENBAUM
CHARLES HUFF FALLON, JR.
WILLIAM BECKER FEINDT
GARNET PAUL FRANCIS, JR.
EUGENE MICHAEL GANE
PAUL GILDEN
LEONARD NATHAN GOLDSTEIN
HANS HENRY GRIESBACH
HARRY CLYDE GROVE, JR.
LEONARD MARVIN HIRSCHMAN
HENRY JACOB HOFFACKER, II
ROBERT ELLSWORTH JACOBY
ROBERT JAKOB
VERDA ELIZABETH JAMES
WALTER EDGAR JOHNSON
OSLER COLLINSON JOYCE
MARSHALL IRVIN KADER
FREDERICK ROBERT KRUG
CHARLES FRANK LABASAUCKAS
IRVING LAWRENCE MAISLEN
WILLIAM LEWIS MCCONNELL
JULES MCCRACKEN
LEON MEINSTER
WILLIAM FRANKLIN MELSON
MAX MILLER
ALBERT WILLIAM MORRIS
MELVIN MYERS
WILLIAM JOSEPH NOON, JR.
HAROLD EDWIN PLASTER
SEYMOUR ALBERT RABINOWITZ
KENNETH VINCENT RANDOLPH
PAUL REED
IRVING KAY ROBINOVITZ
EVERETT TRYON ROGERS
JOSEPH GERALD ROSEN
OSCAR JOHN SCHOEPKE
ALFRED BRADBURY SCHRIVER
LEO JOSEPH SHAUDIS
ERWIN EDWARD SHEA

VINCENT FRANCIS SIDOTI
EDWARD RENNERT STINEBERT
WILLIAM CARTER TINSLEY
DORSEY ROBERT TIPTON
MICHAEL STEPHEN VARIPATIS
BERNARD WALDMAN
IRVING SOLWIN WEINER
JOHN HOFFMAN WOODEN, JR.
DAN WRIGHT

COLLEGE OF EDUCATION

Bachelor of Arts

BENJAMIN ALPERSTEIN
ANNE FITZHUGH ANDERS
VIRGINIA GERTRUDE ARMIGER
DONALD E. BAILEY
DOUGLAS A. BAILEY, JR.
MARIAN ELIZABETH BARKER
SHIRLEY LEE BISKIN
ANNA KATHRYN BOWMAN
MYRTLE GROVE BURKE
GEORGE ELLSWORTH BYERS
*AGATHA VERONICA DORSEY
*RITA LORETTA DUBROW
DORIS EBERT EICHLIN
JOHN GEORGE FREUDENBERGER
JANE HARTJE GRINDEL
MARY ANNE GUYTHER
DORIS RUTH HARRISON
WILLIAM FRANKLIN HOWARD
NORA LOUISE HUBER
HAZEL LOUISE KALBAUGH
MARY ELEANOR KEPHART
MARIAN VIRGINIA MAYES
ELAINE P. MICHELSON
INEZ ANGELINE NEVY
DOROTHY MAY POWELL
*ELINOR GRAHAME JOHNSON REICH
ELIZABETH JANE SMITH
LEONARD SOLLOD
RICHARD JOSEPH STAKEM, JR.
EVELYN LILIAN SULLIVAN

Bachelor of Science

PHILIP JOSEPH AARONSON
CLIFTON ADAMS
OSWALD EGON BACHMANN
MARY-HEDDA BOHLIN
DOROTHY MATILDA BOOSE
VIRGINIA PEARLE BOWLING
CARL KRAUSE BRODE
CARL EDGAR BULL
JULIA HOWISON BURTON
JAMES GERARD CARROLL
*ELLEN NESBITT CLARK
ELVA MAUDE CONRAD
BESSIE ELLA COPES
RUTH CORBETT
*MADIE ELIZABETH CRAIG
*RUBY ANNE DAHLGREN
*LLOYD HUBERT DERR
*CHARLES WESLEY DUDDERAR
*RUTH MARY DUNWOODY
*GEORGIA GUTHRIE ELLEGOOD
JAMES HENRY ELY, JR.
CHARLOTTE MARIA ERICSON
MARGARET TURNBULL EWING
FLORENCE WILSON FOWBLE
KARL GORDON FREAS
ISADORE E. FRIEDMAN
ALICE CARLOTTA HAAS
ELIZABETH WISE HAMILTON
ANNA MARIE HARDESTY
NANNIE MOWELL HAWKINS
HENRY LEONARD HENSEN
MERRILL BOND KALB
*ELIZABETH LOUISE KRAUSE
LAURA MANNING
ALTA GRACE MARTIN
GRACE WEBER MARTIN
*ROBERT HAROLD MCCANN
*M. ELIZABETH MCINTYRE
*MARION OGLE MOSER

*Degree conferred September, 1938.

Hester Virginia Mudd
Celia Estella Murphy
James O. Proctor
Alex Rabinowitz
Roland Emerson Randall
George Thomas Rankin
Mary Elizabeth Rawley
*Bessie Arterburn Rich
Ethel Mae Schwarzmann
Regina Bernardine Shepperd
Blair Hanna Smith
Mildred Elizabeth Smith
*Ruth Elizabeth Smith
Edith Ray Sparling
Mary Miller Speake
Diana Stevan
Lucy Waite Trundle
*Lillian Heiser Vansant
June Elizabeth Weber
Carolyn Isabelle Webster
Ruth E. Westerblad
Stanley R. Whipple
*Elsa Haefner Willhide
Hilda Kathreen Wine
*M. Merle Yoder
Marian Adele Zimmerman

COLLEGE OF ENGINEERING

Civil Engineer

Charles Atwell Chaney
Gerald Burke Coe

Bachelor of Science

Van Sanford Ashmun
Donald Glenn Bartoo
William Cullen Bryant
James Albert Chappelear, Jr.
Maurice E. Corbin, Jr.
William Bates Davis, Jr.
Elies Elvove
Henry Alfred Essex
Irving Julius Etkind
James Louis Forrester
Harold Hugo Franke
Robert Gottlieb
Herbert Prescott Hall
Cecil Lee Harvey
Charles Chilton Holbrook
John Frank Horne
Henry White Janes
Stephen Harris Jones
Robert Edgar Krafft
Philip Morton Lasswell
John Cameron Lynham, Jr.
Donald McClenon
Lloyd Howard Reisler McGill
David Harper Mitchell
Eugene Frederick Mueller, Jr.
John Dana Muncks
Frederick Wallace Perkins, Jr.
Irving Phillips
Eliott Brightwood Robertson
Elgin Wayne Scott, Jr.
George Edward Seeley
John Philip Smith, Jr.
Sydney Snowden Stabler, Jr.
John Walter Stevens, II
Thomas Manning Thompson
Robert Henry Wettje
Thomas Parker Wharton
LeRoy Giddings Willett
Emitt Cleveland Witt, Jr.
Leon Ryno Yourtee, Jr.

*Degree conferred September, 1938.

COLLEGE OF HOME ECONOMICS

Bachelor of Science

Kathryn Frances Abbott
Kathryn Adkins
Virginia Amadon
Mary Lee Aylesworth
Betty Burdette Bain
Helen Griest Balderston
Virginia Lee Beall
Jane Hedrick Beals
Audrey M. Bosley
Evelyn Westover Byrd
Harriet Goslee Cain
Doris Elizabeth De Alba
Doris Mildred Dunnington
Virginia May Gaston
Mary Edith George
Esther Brent Gross
Elma Harris
Jean Merie Hartig
Millie Locke Hill
Dorothy Ashley Huff
Evelyn Louise Iager
Margaret Caldwell Jack
Jane Frazer Kephart
Alice Hudson Lang
Betty Hall Law
Margaret Elizabeth MacDonald
Elizabeth Mary McCormac
Bell Weir McGinniss
Alma Viola Miller
Paula Snyder Nalley
Eileen Catherine Neumann
Ruth Ann Naill Nusbaum
Helen Barr Platt
Dorothy Elizabeth Skinner
Anna Lucia Spehnkouch
Marguerite Susan Stevenson
Beatrice Louise Tucker
Fredricka Isabelle Waldman
*Ruth P. Weber
Ethel Jane Wilson

SCHOOL OF LAW

Bachelor of Laws

†Talbot Winchester Banks
James Dudley Beck
Alvin LaMar Benson
James Watts Blackhurst
Martin Clint Bowles
Leslie Jerome Clark
†George Levy Clarke
†Irvin Henry Cohen
Harry E. Dyer, Jr.
Charles Edward Edmondson
Thomas Bernard Finan, Jr.
Carson Gray Frailey
Harry August Gentner
Gorman Eugene Getty, Jr.
Harry Goldberg
†Francis Davis Handy
George Jarvis Jobson
Lewis Ray Jones
Jerome Joseph Joyce
Samuel Dale Kalis
Charles Bernard Kelly, Jr.
Raymond Aloysius Kirby
Fabian Homer Kolker
Vladimir Stephen Lassotovitch
Marker Jacob Lovell
Edmund William Lubinski
James Macgill
Stratford Eyre McKenrick
Edward George Monroe
Fred Oken
Charles Wesley Prettyman
Alexander Parks Rasin, Jr.
†Roland Custer Ready
James Albert Redmond, Jr.

*Degree conferred September, 1938.
†With honor.

Phyllis D. Shaivitz
Melvin Stanley Silberg
John Hodge Smith
John Carroll Sullivan, Jr.
Edward James Sybert
Alfred Frederick Taylor
Henry Merryman Tiralla, Jr.
Jaroslav Jerry Toula
Carl Edward Tuerk
Albert Theodore Vogel, Jr.
Jerome Wasserman
Barnard Talbott Welsh
George Wendell White, Jr.
Frank Kennedy Wilson, Jr.

Certificates of Proficiency

Thomas Gordon Andrew
Bernard Carroll Topper

SCHOOL OF MEDICINE

Doctor of Medicine

Herman Herbert Baylus
Harry McBrine Beck
Edgar Frank Berman
Aaron Bernstein
Albion Older Bernstein
Elizabeth Grant Bess
Max Ralph Bloom
Edward Joseph Brezinski
Henry Alison Briele
Bernard Brodsky
Lawrence Saville Cannon
James Nicholas Cianos
Robert Thornhill Coffman
Frank Samuel Cohen
Richard Wylie Corbitt
Raymond Murray Cunningham
David Leonard Filtzer
Arnold Ulysses Freed
Leo Junior Gaver
Sylvan David Goldberg
George Smith Grier, III
Harold Allan Grott
Samuel Isaac Haimowitz
Charles Isaac Harris, Jr.
Charles Samuel Harrison
Oscar Hartman
Alvin Sidney Hartz
Leonard Lincoln Heimoff
Charles Bullard Hooker
Thomas Manning Hutchins
Benjamin Isaacson
R. Donald Jandorf
Lewis Henry Jannarone
Charles Wilson Jones
David Kairys
William Henry Kammer, Jr.
Melvin Daniel Kappelman
Philip Weyforth Keister
James Patterson Kerr, Jr.
James Arthur Kiely
Howard Franklin Kinnamon, Jr.
Bernard Stanley Kleiman
Herbert Lapinsky
Arnold Fabian Lavenstein
William Templeton Layman
William Harvey Leitch
Stephen Lee Magness
John Robinson Magruder
Irving Lowell Marks
William James McClafferty, Jr.
Francis McLaughlin
Alvin Francis Meyer
Irving Miller
William Shepherd Miller
John Anthony Moran
Charles Hunter Moricle
James Baker Nuttall
David Waugh Palmer
Seigle Wilson Parks
Walter Joseph Pijanowski
Samuel Pillar
Melvin Frank Polek
Dexter LeRoy Reimann
Samuel Rochberg

Edwin Russell Ruzicka
Max Samuel Sadove
*Aram Martyr Sarajian
Joseph Edwin Schenthal
Isadore Scher
Thomas Scott Sexton
Claude Porter Sherman
Maurice Siegel
Philip Laurens Smoak
Sylvan D. Solarz
Herbert Spiegel
William Joseph Steger
Leland Bates Stevens
George Tartikoff
Ramsay Berry Thomas
Wilbur Clyde Thomas
John Peter Urlock, Jr.
Leonard Wallenstein
Jesse R. Wanner, Jr.
Fuller Barnard Whitworth
Milton Jay Wilder
Sol Wilner
Thomas Luther Worsley, Jr.
Daniel Leonard Zalis

SCHOOL OF NURSING

Graduate in Nursing

Margaret Davidson Beall
Margaret Eleanor Bennington
Mary Sunshine Clark
Nancy Lou Craven
Margaret Odelle Culler
Dorothy Margaret Danforth
Frances Elizabeth Dorsett
Thelma Catherine Doyle
Lucille Elizabeth Foster
Marguerite Wilson Foster
Julia Juanita Grammer
Louise Margaret Hollister
Margaret Maddox Lee
Catherine Boon Magruder
Lolah Harrington Marshall
Virginia Belle Richardson
Mary Jane Roach
Dorothy Elizabeth Shaff
Marian Estelle Travers
Susan Hays Vandervoort
Margaret Fentress Wilson

SCHOOL OF PHARMACY

Bachelor of Science in Pharmacy

Daniel S. Baker
Herman Herbert Baylus
*Aaron Bernstein
Albert Binstock
Frank Samuel Cohen
Anthony Joseph Dobropolski
Joseph Urban Dorsch
Jack Feldman
Irving Herbert Folus
*Arnold Ulysses Freed
*Leo Junior Gaver
Morris Giller
*Sylvan David Goldberg
Henry Mervin Golditch
Nathan I. Gruz
Angela Rose Hackett
*Oscar Hartman
William Marion Ichniowski
Eugene Jacobs
Cyrus Francis Jones
Irvin Leonard Kamanitz
*Melvin Daniel Kappelman
Lawrence Lipman Lieberman
Irving Lowell Marks
Jerome Mask
David Massing
Daniel Mendelsohn
Victor Hugo Morgenroth, Jr.

*Degree conferred September, 1938.

Melvin Mutchnik
*James Baker Nuttall
Joseph Leon Okrasinski
Katherine Justina Parker
Lillian Passen
*Dexter LeRoy Reimann
Harry Louis Rochester
Morris Rosenberg
Alvin Rosenthal
Louis Thomas Sabatino
*Max Samuel Sadove
Mario Sama
Louis Sapperstein
Herbert David Schneyer
Marion Shalowitz
Bernard Silverstein
Nathan Morton Snyder
Maurice Wiener
Milton Jay Wilder
George Ira Young, Jr.

*Degree conferred September, 1938.

HONORS, MEDALS, AND PRIZES, 1938-39.

Elected Members of Phi Kappa Phi, Honorary Society

Ralph Aarons
Kathryn Frances Abbott
Kathryn Adkins
Harry Davis Anspon
Edwin Rumsey Anthony, Jr.
Mary Lee Aylesworth
Helen R. Bartlett
Phyllis Geraldine Bollinger
Anna Kathryn Bowman
Robert Johnston Bradley
Allan Harvey Brown
Myrtle Grove Burke
Florence Ruth Comer
George Henri Pearson Eierman
Elies Elvove
Lydia MacMullan Evans
Earl Wayne Fitzwater
Harold Hugo Franke
Paul McConkey Galbreath
Robert Gottlieb
Mary Anne Guyther
Jack D. Hartman
Frances Strickland Holmead
Hazel Louise Kalbaugh
Jane Frazer Kephart
John Alexander Krynitsky
Marcia Ladson
Philip Morton Lasswell
Richard Everett Lee
Etta Carolyn Link
Bell Weir McGinniss
James Elwood Pitzer
Milton Seymour Schecter
Diana Stevan
Ellen Elizabeth Talcott
Ira Thompson Todd, Jr.
Edward Martin Wharton
Thomas Parker Wharton
Carolyn Isabelle Webster

Citizenship Medal, Offered by Dr. H. C. Byrd, Class of 1908
Joseph Kemp Peaslee

Citizenship Prize, Offered by Mrs. Albert F. Woods
Helen Lucille Reindollar

Athletic Medal, Offered by the Class of 1908
Edwin Roberts Johnson

Maryland Ring, Offered by Charles L. Linhardt
James Gordon Meade, Jr.

Goddard Medal, Offered by Mrs. Annie K. Goddard James
Richard Everett Lee

Sigma Phi Sigma Freshman Medal
Cecil Roscoe Martin

Delta Delta Delta Sorority Medal
Lois Virginia Kemp

Medal and Junior Membership, Offered by the American Institute of Chemists
John Alexander Krynitsky

Dinah Berman Memorial Medal, Offered by Benjamin Berman
John Chesley Marzolf

Mortar Board Cup
LYDIA MACMULLAN EVANS

Honor Key, Offered by the Class of 1926 of the School of Business Administration
GEORGE HENRI PEARSON EIERMAN

Omicron Nu Sorority Medal
DORIS HELEN MCFARLAND

Service Award
HELEN GRIEST BALDERSTON

Bernard L. Crozier Award
ROBERT EDGAR KRAFFT

American Society of Civil Engineers Award
THOMAS PARKER WHARTON

Tau Beta Pi Award
BOWEN WOOD SHAW

Tau Beta Pi Certificate of Merit
ROBERT GOTTLIEB

Alpha Lambda Delta Sorority Award
LYDIA MACMULLAN EVANS

Edward Powell Lacrosse Trophy
JAMES GORDON MEADE, JR.

Louis W. Berger Baseball Trophy
GEORGE WILLIAM KNEPLEY

The Diamond Back Medals

LAWRENCE GRANT HOOVER, JR.
HELEN LUCILLE REINDOLLAR
MARGARET LESLIE MASLIN
GEORGE HENRI PEARSON EIERMAN
FREDERICK WALLACE PERKINS, JR.
JOHN GEORGE FREUDENBERGER

The Terrapin Medals

WILLIAM EDWARD BROWN, JR.
MARY LEE ROSS
WILLIAM BRUCE DAVIS

The Old Line Medals

JEROME SPILMAN HARDY
IRVING PHILLIPS
MARGARET ELIZABETH MACDONALD

Battalion Trophy, Offered by Mahlon N. Haines (1894)
FIRST BATTALION, COMMANDED BY CADET MAJOR CHARLES W. WEIDINGER

Governor's Drill Cup
COMPANY G, COMMANDED BY CADET CAPTAIN ELGIN WAYNE SCOTT, JR.

Reserve Officers' Association Award
CADET CAPTAIN ELGIN WAYNE SCOTT, JR.

Alumni Military Cup
FIRST PLATOON, COMPANY D, COMMANDED BY
CADET LIEUTENANT JULIUS WIRTH IRELAND

Scabbard and Blade Cup
FIRST PLATOON, COMPANY D, COMMANDED BY
CADET LIEUTENANT JULIUS WIRTH IRELAND

Military Medal, Offered by the Class of 1899
CADET THOMAS EUGENE WATSON, JR.

Pershing Rifles Medal to Each Member of Winning Squad

CADET CORPORAL JOSEPH MICHAEL JOYCE
CADET JAMES WARREN PULLIAM
CADET PAGE BOYD PRATT
CADET GORDON FISK BLOOD
CADET BERNARD MILLOFF
CADET J. ALDRICH HAMBLETON
CADET FRANK COOPER BORENSTEIN
CADET JOHN LEONARD MEAKIN

William Randolph Hearst Rifle Match Medals

CADET WARREN PRUDEN DAVIS
CADET GEORGE EVERETT MEEKS
CADET WILLARD CECILLIUS JENSEN
CADET THOMAS WISE RILEY
CADET ROBERT WYNNE LAUGHEAD

Third Corps Area Intercollegiate Rifle Match Championship Medals

CADET WARREN PRUDEN DAVIS
CADET THOMAS WISE RILEY
CADET GEORGE EVERETT MEEKS
CADET RAYMOND LOUIS HODGES
CADET FLOYD ALLISON SOULÉ
CADET ROBERT WYNNE LAUGHEAD
CADET FLETCHER HUDSON JONES, JR.
CADET JOHN CHESLEY MARZOLF
CADET ENOS RAY
CADET JOHN FRANCIS GREENIP

National Intercollegiate Rifle Match Championship Medals for Third Place in Shoulder Match

CADET WARREN PRUDEN DAVIS
CADET FRANK DEEN EVANS
CADET ALDEN ELON IMUS, JR.
CADET ROBERT WYNNE LAUGHEAD
CADET GEORGE EVERETT MEEKS
CADET THOMAS WISE RILEY
CADET WILLARD CECILLIUS JENSEN

National Rifle Association Intercollegiate Postal Match Medals
First Place

CADET ROBERT WYNNE LAUGHEAD
CADET GEORGE EVERETT MEEKS
CADET THOMAS WISE RILEY
CADET FRANK DEEN EVANS
CADET WARREN PRUDEN DAVIS

Fifth Place

CADET WILLARD CECILLIUS JENSEN

Camp Perry National R. O. T. C. and C. M. T. C. Rifle Competition, Minuteman Trophy Gold Medals

CADET THOMAS L. COLEMAN
CADET R. W. LAUGHEAD
CADET W. C. JENSEN (Captain)
CADET MERLE R. PREBLE

Military Department Gold Medal to Individual Firing High Score on Varsity Rifle Team

CADET THOMAS WISE RILEY

Military Department Gold Medal to Individual Firing High Score on Freshman Team

CADET FLETCHER HUDSON JONES, JR.

National Rifle Association All-American Rifle Team Gold Bullet

CADET GEORGE EVERETT MEEKS

A. L. Mehring All-American Gold Medal for Rifle Competition

CADET GEORGE EVERETT MEEKS

A. L. Mehring All-American Silver Medal for Rifle Competition

CADET ALDEN ELON IMUS, JR.

National Society of Pershing Rifles Medals

CADET JOHN CHESLEY MARZOLF
CADET ROBERT LEE MATTINGLY
CADET JOHN WILLIAM MITCHELL

District of Columbia Championship Medals, First Place

CADET WARREN PRUDEN DAVIS
CADET GEORGE EVERETT MEEKS
CADET FRANK DEEN EVANS
CADET ROBERT WYNNE LAUGHEAD
CADET THOMAS WISE RILEY

District of Columbia Championship, Individual High Score

CADET ROBERT WYNNE LAUGHEAD

District of Columbia Championship, Individual High Score, Class "B"

CADET ENOS RAY

District of Columbia Freshman Rifle Championship, Junior Medals for First Place

CADET FLETCHER HUDSON JONES, JR.
CADET GUY HOWARD GOODMAN, JR.
CADET JAMES BERNARD WATERS
CADET ARTHUR HOWARD VALENTINE
CADET WILLIAM WYLIE HOPKINS, JR.

WAR DEPARTMENT AWARDS OF COMMISSIONS AS SECOND LIEUTENANTS

Chemical Warfare

WALTER LEROY MILLER, JR.

The Infantry Reserve Corps

ROBERT WARING ADAMS
BENJAMIN ALPERSTEIN
VAN SANFORD ASHMUN
JOHN HENRY BEERS
FRED THOMAS BISHOPP
THOMAS JAMES CAPOSSELA
FRANK HARFORD CRONIN
WARREN PRUDEN DAVIS
WILLIAM BATES DAVIS, JR.
ELIES ELVOVE
HENRY ALFRED ESSEX
SIGMUND IRVIN GERBER
ROBERT GOTTLIEB
JOHN JUDSON GUDE
HERBERT PRESCOTT HALL
CECIL LEE HARVEY
FREDERIC MAXCY HEWITT
WILLIAM FRANKLIN HOWARD
JULIUS WIRTH IRELAND
LEWIS ARTHUR JONES
RICHARD EUGENE KERN
ROBERT EDGAR KRAFFT
HARVEY WILSON KREUZBURG, JR.
JAMES MICHAEL LANIGAN, JR.
LUTHER EDGAR MELLEN, JR.
NED HERMAN OAKLEY
RICHARD JAMES O'NEILL
FREDERICK WALLACE PERKINS, JR.
ELIOTT BRIGHTWOOD ROBERTSON
GEORGE EDWARD SEELEY
FLOYD ALLISON SOULÉ
SYDNEY SNOWDEN STABLER, JR.
JOHN WALTER STEVENS, II
DONN PERE STRAUSBAUGH
LEWIS NEWTON TARBETT
CHARLES WILLIAM WEIDINGER
EMMITT CLEVELAND WITT, JR.
THOMAS LESLIE WILSON
FRANCIS JOSEPH ZALESAK

HONORABLE MENTION

College of Agriculture

First Honors—ALLAN HARVEY BROWN, EARL WAYNE FITZWATER, ELLEN ELIZABETH TALCOTT, PAUL MCCONKEY GALBREATH

Second Honors—ROBERT ANDREW SHOEMAKER, FRED BERNHARD WINKLER, LAWRENCE SHERWOOD FAITH, FRANK RUSSELL MCFARLAND, JR.

College of Arts and Sciences

First Honors—LYDIA MACMULLAN EVANS, ETTA CAROLYN LINK, FLORENCE RUTH COMER, HARRY DAVIS ANSPON, EDWARD MARTIN WHARTON, JAMES ELWOOD PITZER, EDWIN RUMSEY ANTHONY, JR., RALPH AARONS, JOHN ALEXANDER KRYNITSKY, VICTOR HARTWELL LAWS, ELIZABETH BROWN SHERRILL

Second Honors—Richard Everett Lee, Fred Thomas Bishopp, Isaac Walter Silberg, Elizabeth Clark Barber, Harry Cohen, Daniel Travers Prettyman, Gustavus Warfield, Ethel S. Levine, Alvin H. Honigman, Arthur Greenfield, Carolyn Dennette Clugston

College of Commerce

First Honors—Ira Thompson Todd, Jr., George Henri Pearson Eierman, Robert Johnston Bradley

Second Honors—Jerome Spilman Hardy, Louis Mohler Frey

College of Education

First Honors—Myrtle Grove Burke, Mary Anne Guyther, Diana Stevan, Carolyn Isabelle Webster

Second Honors—Anna Kathryn Bowman, William Franklin Howard, Hazel Louise Kalbaugh, Doris Ebert Eichlin

College of Engineering

First Honors—Philip Morton Lasswell, Elies Elvove, Thomas Parker Wharton, Harold Hugo Franke

Second Honors—William Bates Davis, Jr., Robert Gottlieb, Irving Phillips, Henry Alfred Essex

College of Home Economics

First Honors—Mary Lee Aylesworth, Jane Frazer Kephart, Kathryn Frances Abbott, Kathryn Adkins

Second Honors—Bell Weir McGinniss, Elizabeth Mary McCormac, Evelyn Westover Byrd, Betty Burdette Bain

School of Dentistry

University Gold Medal for Scholarship

George Coffman Blevins

Certificate of Honor

Harold Edwin Plaster
Bertrand Oswald Chan-Pong
Kenneth Vincent Randolph
Garnet Paul Frances, Jr.
John Hoffman Wooden, Jr.

School of Law

Elected to the Order of the Coif

Talbot Winchester Banks
George Levy Clarke
Francis Davis Handy
Roland Custer Ready
Irvin Henry Cohen

Alumni Prize for the Best Argument in the Honor Case in the Practice Court

Talbot Winchester Banks

George O. Blome Prizes to Representatives on the Honor Case in the Practice Court

Talbot Winchester Banks
Thomas Bernard Finan, Jr.
Charles Bernard Kelly, Jr.
Melvin Stanley Silberg

School of Medicine

University Prize Gold Medal

James Baker Nuttall

Certificate of Honor

Francis McLaughlin
Raymond Murray Cunningham
William Harvey Leitch
Thomas Scott Sexton
Leland Bates Stevens
Ramsay Berry Thomas

The Dr. A. Bradley Gaither Memorial Prize of $25.00 for the Best Work in Genito-Urinary Surgery during the Senior Year

Leonard Wallenstein

School of Nursing

The Janet Hale Memorial Scholarship, given by the University of Maryland Nurses' Alumnae Association, to Pursue a Course in Administration, Supervisory, or Public Health Work at Teachers College, Columbia University, to the Student Having the Highest Average in Scholarship

Nancy Lou Craven

The Elizabeth Collins Lee Prize to the Student Having the Second Highest Average in Scholarship

Virginia Belle Richardson

The Mrs. John L. Whitehurst Prize for the Highest Average in Executive Ability

Nancy Lou Craven

The Edwin and Leander M. Zimmerman Prize for Practical Nursing and for Displaying the Greatest Interest and Sympathy for the Patients

Marguerite Wilson Foster

The University of Maryland Nurses' Alumnae Association Pin, and Membership in the Association, for Practical Nursing and Executive Ability

Louise Margaret Hollister

School of Pharmacy

Gold Medal for General Excellence

Maurice Wiener

The William Simon Memorial Prize for Proficiency in Practical Chemistry

Melvin Mutchnik

The L. S. Williams Practical Pharmacy Prize

Victor Hugo Morgenroth, Jr.

The Conrad L. Wich Botany and Pharmacognosy Prize

Louis Thomas Sabatino

Certificate of Honor

Eugene Jacobs

REGIMENTAL ORGANIZATION, RESERVE OFFICERS' TRAINING CORPS, 1939-1940

COLONEL MERLE REED PREBLE, Commanding
LIEUTENANT COLONEL THOMAS L. COLEMAN, Regimental Executive Officer
LIEUTENANT COLONEL THOMAS W. RILEY, Adjutant
LIEUTENANT COLONEL JOSEPH M. MARZOLF, Plans and Training Officer

FIRST BATTALION

LIEUTENANT COLONEL ROBERT W. LAUGHEAD, Commanding
MAJOR WILLARD C. JENSEN, Executive Officer
FIRST LIEUTENANT GEORGE L. FLAX, Adjutant

COMPANY "A"	COMPANY "B"	COMPANY "C"
Captain Joseph A. Parks	Captain Francis X. Beamer	Captain Frank J. Skotnicki
1st Lieut. Ralph Albarano	1st Lieut. Elmer Freemire	1st Lieut. William G. Esmond
1st Lieut. Morgan Tenny	2nd Lieut. Richard K. Barnes	2nd Lieut. Carl Blumenstein
2nd Lieut. Herman J. Badenhoop	2nd Lieut. H. B. Hambleton	2nd Lieut. William F. Yocum

SECOND BATTALION

LIEUTENANT COLONEL ENOS RAY, Commanding
MAJOR CHARLES C. HOLBROOK, Executive Officer
FIRST LIEUTENANT FRED J. HUGHES, Adjutant

COMPANY "D"	COMPANY "E"	COMPANY "F"
Captain William G. Souder	Captain Robert S. Brown	Captain Warren E. Steiner
1st Lieut. John Grier	1st Lieut. Huyette B. Oswald	1st Lieut. R. J. Lodge
1st Lieut. Chas. W. Bastian	2nd Lieut. Nicholas Budkoff	2nd Lieut. J. Newton Cox
2nd Lieut. William E. Brown	2nd Lieut. H. F. Kimball	2nd Lieut. Vernon R. Foster

THIRD BATTALION

LIEUTENANT COLONEL WILLIAM H. McMANUS, JR., Commanding
MAJOR LOUIS HENNIGHAUSEN, Executive Officer
SECOND LIEUTENANT HAROLD DILLON, Adjutant

COMPANY "G"	COMPANY "H"	COMPANY "I"
Captain George Heil	Captain Burton D. Borden	Captain Carl H. Stewart
1st Lieut. James A. McGregor	1st Lieut. Adam T. Stoddart	1st Lieut. Mason Chronister
2nd Lieut. Donald Davidson	2nd Lieut. W. B. Davis	2nd Lieut. C. A. Dietrich
2nd Lieut. S. M. Meginniss	2nd Lieut. Oscar Nevares	2nd Lieut. Ralph J. Tyser

FOURTH BATTALION

LIEUTENANT COLONEL RICHARD LEE, Commanding
MAJOR ALAN R. MILLER, Executive Officer
SECOND LIEUTENANT GEORGE D. ALLEN, Adjutant

COMPANY "K"	COMPANY "L"	COMPANY "M"
Captain Edward T. Naughten	Captain H. F. Cotterman, Jr.	Captain Wm. H. Watkins
1st Lieut. John K. Shipe	1st Lieut. G. E. Lawrence	1st Lieut. Arthur M. Rudy
2nd Lieut. C. M. Forsyth	2nd Lieut. Paul Lanham	2nd Lieut. H. G. Gallagher
2nd Lieut. G. H. Storrs	2nd Lieut. R. E. O'Farrell	2nd Lieut. E. F. Harlan

BAND

CAPTAIN L. J. OTTEN

NON-COMMISSIONED OFFICERS

FIRST BATTALION

COMPANY "A"

W. F. Gannan

J. M. Beattie
R. D. Mattingly
R. A. Groves

B. M. Hall
H. A. Tapper
J. N. Bauernschmidt

COMPANY "B"

First Sergeants

L. J. Hodgins

Platoon Sergeants

J. M. Carter
J. L. Meakin
R. A. Clark

Guide Sergeants

V. J. Haddaway
W. K. Brendle
E. M. Lloyd

COMPANY "C"

N. R. Jones

J. L. Crone
N. A. Miller
R. F. Davis

G. M. Chapline
F. A. Dwyer

SECOND BATTALION

COMPANY "D"

D. C. Kelly

D. Custer
D. G. Drawbaugh
B. L. Jones

J. F. Cherry
G. Valenti

COMPANY "E"

First Sergeants

J. C. Marzolf

Platoon Sergeants

E. L. Daniels
R. D. Rappleye
J. F. Edgerton

Guide Sergeants

W. E. McMahon
R. F. Crump
D. A. Onnen

COMPANY "F"

R. C. Rice

F. W. Glaze
R. L. Reid
J. R. Finton

J. H. Rochstroh
W. C. Downs
W. P. Johnson

THIRD BATTALION

COMPANY "G"

A. B. Rice

J. F. Greenip
S. C. Streep
T. Hitch

E. C. Saltzman
H. M. Hink
D. P. Marshall

COMPANY "H"

First Sergeants

T. E. Watson

Platoon Sergeants

Lacy Hall
F. C. Maisel
D. J. Harwood

Guide Sergeants

N. H. Silverman
A. V. Minion
M. Pennella

COMPANY "I"

R. R. Westfall

L. H. Haskin
E. C. Wagner
J. J. Ryan

T. G. Timberlake
J. M. Powell

FOURTH BATTALION

COMPANY "K"

R. Hodges

T. A. Hughes
C. W. Wannan
R. W. Saum

J. C. McDevitt
J. H. Randall
E. F. Bright

COMPANY "L"

First Sergeants

S. M. Whalen

Platoon Sergeants

H. M. Hutson
J. E. Weber
W. J. Suit

Guide Sergeants

E. B. Harwood
R. T. Skeen

COMPANY "M"

J. G. Reckord

A. E. Imus
J. B. Burnside
A. M. Horn

J. E. Hamill
W. H. Talcott
L. T. Schroeder

BAND

First Sergeant

P. O. Siebeneichen

Register of Students, 1939-40

COLLEGE OF AGRICULTURE

Senior Class

Ahalt, Louis F., Middletown
Aist, Wilmer F., Jessup
Beneze, George C., Annapolis
Brinckerhoff, Mary L., Lansdowne, Pa.
Brosius, J. William, Jr., Adamstown
Butler, Walter M., Dickerson
Cole, Albert H., Linthicum Heights
Cotterman, Harold F., Jr., College Park
Crist, Howard G., Jr., Glenelg
Danforth, F. Elaine, Baltimore
Daugherty, Edward B., Jr., Delmar, Del.
Davis, Virginia E., Washington, D. C.
Dougherty, Edward J., Baltimore
Farrington, Edith, Chevy Chase
Faulkner, Edgar F., Lansdowne
Forsyth, Carroll M., Friendsville
Foster, Vernon R., Parkton
Fullington, Page DeF., Washington, D. C.
Gatch, Benton R., Baltimore
Gude, John J., Hyattsville
Hansel, William, Vale Summit
Harris, George J., Lonaconing
Harrison, Venton R., Washington, D. C.
Hess, Kenneth S., Washington, D. C.
Hodson, Virginia E., Baltimore
Howard, Park P., Havre de Grace
Huffer, Sarah V., Boonsboro
Jones, Kenneth F., Newport, Del.
Kefauver, Fred S., Middletown
Keller, J. Hugh, Middletown
Kemp, Margaret C., College Park
Leise, Joshua M., Washington, D. C.
MacLeod, Mary F., Washington, D. C.
McGregor, James A., Worton
Meade, DeVoe K., Takoma Park
Menke, Margaret C., Washington, D. C.
Merritt, Joseph S., Dundalk
Miller, Lee A., Hyattsville
Morris, J. Burton, College Park
Nevares, Oscar W., Baltimore
Oakley, Ned H., Washington, D. C.
Pohlhaus, Joseph N., Baltimore
Redding, William V., Street
Rudy, Arthur M., Middletown
Schmier, Charles N., Woodlawn
Sheibley, David F., Newport, Pa.
Smith, Wilson L., Jr., Stevenson
Stevens, Robert LeR., Street
Stouffer, Frances J., Berwyn
Swann, Agnes H., Helen
Talbott, Dorothy E., Clarksville
Taylor, Frank W., Ridgely
Ward, Stevenson A., Havre de Grace
Winter, Joseph S., Silver Spring
Wisner, Gaylord H., Washington, D. C.

Junior Class

Bailey, Howard M., Parkton
Beattie, James M., Beltsville
Bierer, Donald S., Brooklyn, N. Y.
Bothe, Henry C., Baltimore
Brown, Virginia L., Washington, D. C.
Chance, Charles M., Easton
Christensen, Hilde M., Hyattsville
Cox, Daniel T., Lawrence, N. Y.
Cragin, Lexey J., Greenbelt
Crist, Lee S., Glenelg
Donn, Maryan S., Hollywood
Eyler, Laura H., Baltimore
Forbes, Ian, Jr., Washington, D. C.
Gordon, Jack L., Riverdale
Hoffman, Frank H., Edmonston
Hoshall, George W., Parkton
Jehle, John R., Hyattsville
Johnson, David O., Takoma Park
Kelly, David C., Jr., Fort Meade
Kluge, Gordon L., Washington, D. C.
Lange, Phyllis S., Washington, D. C.
Lichliter, Lawrence D., Washington, D. C.
Mahrer, Mary E., Wilmington, Del.
Meyer, Robert C., Baltimore
Milkie, Frederick E., Washington, D. C.
Miller, Alan R., Washington, D. C.
Miller, Norman A., Jr., Hyattsville
Mulladay, John T., Washington, D. C.
Polan, Alvin F., Baltimore
Punnett, Ruth S., Leonia, N. J.
Rappleye, Robert DuB., Washington, D. C.
Rea, William, Takoma Park
Reid, John T., Siebert
Rice, Floyd E., Takoma Park
Ryan, Hilda H., Washington, D. C.
Ryan, John J., Rockville
Scoville, Raymond M., Silver Spring
Shelton, Emma, Chevy Chase
Suit, William J., Washington, D. C.
Thurston, Margaret J., Riverdale
Treakle, Hugh C., Street
Vogt, George B., Catonsville
Weber, Jack E., Oakland
Yochelson, Aaron, Anacostia

Sophomore Class

Adkin Lee W., Snow Hill
Anderson, Harry W., Washington, D. C.
Astle, Norris C., Rising Sun
Bernstein, Alfred, Washington, D. C.
Bosley, Glenn M., Sparks
Boyce, William W., Jr., Lutherville
Boyer, William W. Perryman
Brauner, Donald J., Hyattsville
Briggs, Gilbert P., Bethesda
Buddington, Philip N., College Park
Cabrera, Rafael L., Washington, D. C.
Calver, Georgianna E., North Beach
Clark, George E., Jr., Havre de Grace
Clendaniel, Charles E., Stewartstown, Pa.
Cooley, John D., Jr., Aberdeen
Cooley, Stuart J., Berwyn
Cruikshank, Thomas C., Galena
Day, William W., Street
deAlba, Jorge, Washington, D. C.
Degen, Rudolph G., Chevy Chase
DiGiulian, Charles A., Hillside
Downes, Marshall H., Centreville
Duguid, George C., Riverdale
Dunster, Harold P., Jr., Baltimore
Durm, William B., Baltimore
Edwards, Robert H., Baltimore
Eisenberger, James D., Cumberland
Elliott, Howard E., Baltimore
Ernst, Chester G., Clear Spring
Galbreath, Thomas C., Rocks
Garrett, Harry A., Rockville
Garrett, John D., Baltimore
Goodman, Guy H., Jr., Takoma Park
Gross, Howard M., Raspeburg
Gude, Joseph L., Hyattsville
Harcum, Edward W., Mardela
Harwood, Elliott B., Baltimore
Hawley, Walter O., Takoma Park
Hughes, Frank W., Washington, D. C.
Hunt, Max VanK., Wysox, Pa.
Husted, James V., Silver Spring
Jacques, Samuel A., Smithsburg
Jarrell, Joseph B., Jr., Ridgely
Jenkins, Richard L., Suitland
Jones, H. Bradley, Sharon
Jones, Joseph W., Sharon
Jubb, Charles R., Millersville
Keller, Elmer C., Middletown
King, Roland E., Reisterstown
Klahold, Harold P., Baltimore
Kolb, Robert W., Baltimore
Leighton, Irene, Spring Lake, N. J.
Leister, Richard A., Washington, D. C.
Levy, Stanley, Baltimore
Libeau, Clayton P., College Park
Liden, Conrad H., Federalsburg
Linsley, Herbert C., Bridgeport, Conn.
Marshall, Donald P., Berlin
Martin, Calvin S., Rockville
Mayne, Mehrl F., Rockville
McDonald, Leib, Maryland Line
McGregor, William A., Worton
McKay, Robert H., Rocky Ridge
Meredith, George G., Centreville
Michaels, Sheldon, New York, N. Y.
Miles, William W., Gaithersburg
Miller, Vernon H., Laurel
Nicholson, Clark O., Dickerson
Nordeen, Carl E., Jr., Mt. Rainier
Northam, David E., Snow Hill
Osborn, James G., Aberdeen
Porter, Carlton H., Greensboro
Porter, Robert C., Washington, D. C.
Radebaugh, Carroll M., Towson
Rehberger, Edward A., Jr., Baltimore
Reiblich, Karl F., Woodlawn
Reid, Frank S., Siebert
Rose, Donald B., Baltimore
Ryon, Mary F., Springfield, Mo.
Sachs, Carl A., Washington, D. C.
Scarborough, Rowan L., Silver Spring
Schaffer, J. David, Laurel
Schilling, John M., Baltimore
Sesso, Raymond F., Washington, D. C.
Siegrist, Jacob C., Baltimore
Sigrist, Paul E., Westover
Skinner, James H., Barclay
Slack, Samuel T., Sykesville
Smelser, Charles H., Jr., Uniontown
Smith, Ernest E., Brooklyn
Smith, Verlin W., Hayesville, N. C.
Smoot, John J., Catonsville
Smyth, Randall B., Hagerstown
Solomon, Marvin B., Baltimore
Stalcup, Robert E., Berwyn Heights
Talbott, Edward B., Clarksville
Taliaferro, T. Boyd, Jr., Baltimore
Waite, Alan K., College Park
Walton, Hugh McK., Washington, D. C.
Wannan, Charles W., Jr., Washington, D. C.
Waters, Perrie W., Rockville
Wehrle, John S., Altoona, Pa.
Welling, Mordecai G., Sykesville
Whipp, Roscoe N., Frederick
Whiteford, Winfield S., Whiteford
Whittaker, Burton E., Laurel
Widener, Frederick D., Baltimore
Wilcox, Stanley, Rockville
Zalph, Isidor S., New York, N. Y.

Freshman Class

Anderson, Julian B., Laurel
Archer, Norman D., Landover
Baity, Earl C., Jr., Street
Baker, Nevin S., New Windsor
Baker, Ralph V., Mountain Lake Park
Barger, Blair B., Upper Marlboro
Barnes, Norman R., Port Deposit
Baumann, Joseph C., Mt. Rainier
Benson, Henry F., Berwyn
Benson, Robert H., Clarksville
Biondi, Harry J., Jr., Riverdale
Biser, Lloyd C., Hagerstown
Black, Benjamin F., Reisterstown
Bralove, Daniel C., Washington, D. C.
Brennan, Joseph M., New York, N. Y.
Brice, Julian T., Baltimore
Brill, Harold W., Mt. Rainier
Briscuso, Amleto J., Washington, D. C.
Bryan, James E., Jr., Queenstown
Brylawski, Alan W., Washingotn, D. C.
Burlin, Amos M., Port Deposit
Calhoun, John K., Westminster
Carr, Richard D., Baltimore
Cartagena, Nicholas M., Caguas, P. R.
Carter, John McC., Rockville
Chilson, LeMar M., Riverdale
Clark, John E., Rockville
Clarke, Margaret E. O., Annapolis
Cleveland, Richard A., Garrett Park
Comstock, Robert O., Bethesda
Corey, Arthur T., Pasadena
Costa, Avelino M., Chevy Chase
Crist, Hartley D., Glenelg
Dameron, L. Yates, Hyattsville
Davis, Russell C., Rockville
Davis, William McN., Whiteford
Dillon, John A., Hyattsville
Donaldson, William S., Catonsville
Dunlap, Lohr E., Winchester, Va.
Durst, Harry P., Silver Spring
Durst, John, Silver Spring
Eyster, Glenn R., York New Salem, Pa.
Gales, Richard E., Laurel
Gibson, Harry Jr., White Hall
Gies, Donald G., Crownsville
Gordy, Irving McK., Linkwood
Grafton, Merrell L., Forest Hill
Gray, Francis A., Jr., Chaptico
Green, V. Edwin, Washington, D. C.
Griswold, Richard M., Silver Spring
Gritzan, Robert F., Silver Spring
Groome, William B., Mechanicsville
Hahn, Madison N., Annapolis Junction
Hance, Benjamin L., Wilson
Handen, Sylvan L., Baltimore
Harrison, John T., Tilghman
Harrison, Walter VanA., Jr., Baltimore
Heckrotte, Walter B., Jr., Baltimore
Henesy, Russell E., Chewsville
Hoopengardner, Joseph L., Hagerstown
Hopkins, Samuell E., Brinklow
Horn, Norman L., Baltimore
Hudson, Marion C., Delmar
Jacques, Edgar G., Smithsburg
Johns, Wilford E., Hyattsville
Johnson, Robert W., Germantown
Kahoe, Stephen M., Jr., Joppa
Kautz, Paul H., Baltimore
Kemp, William B., Baltimore
Kendall, Donald J., Jr., Alexandria, Va.
Klein, Victor P., Baltimore
Knox, Philander C., Towson
Korab, Harry E., Brentwood
Kott, Thaddeus J., Jamaica, N. Y.
Kubler, Warren H., Federalsburg
Lane, William E., Stevensville
Lane, William L., Bozman
Lankford, Stanley E., Pocomoke City
Leizman, Theodore, Baltimore
Lewis, Ralph H., Hyattsville
Lowe, William B., Pylesville
MacDonald, Thomas A., Washington, D. C.
Manuel, Glenn H., Chevy Chase
Markley, William K., Washington, D. C.
Matthews, Lewis J., Takoma Park
Mattingly, John P., Riverdale
Mause, James P., Myersville
Mitchell, Charles W., III, Baltimore
Mitchell, George G., Bloomfield, N. J.
Mizell, Russell F., Jr., Kensington
Montgomery, William T., Charlestown
Moore, John E., Upper Marlboro
Moore, Robert C., Anacostia, D. C.
Mueller, Raymond G., Cordova
Myers, Merl D., Baltimore
Neuman, Harry I., Washington, D. C.
Novick, Shulamith, Washington, D. C.
Oltman, John W., Berlin
Pappas, George A., Washington, D. C.
Parkman, Theodore G., Jr., Silver Spring
Peak, Frank L., Washington, D. C.
Perry, Gilbert W., Annapolis
Phillips, Arthur G., Lonaconing
Pitcher, Charles W., Jr., Trenton, N. J.
Plummer, Donald B., Hagerstown
Prigel, James M., Gittings
Quinn, Patrick J., Towson
Ralston, Norvell S., Bowie
Ramey, David S., Towson
Rassier, Henry J., Washington, D. C.
Reisinger, Robert C., Miami. Fla.
Reith, William A., College Park

Reynolds, Kenton C., Washington, D. C.
Rosenstadt, Aaron A. S., Baltimore
Rubenstein, Daniel, Baltimore
St. Clair, Charles W., Rocks
Salisbury, Bernard F., East Hampton, N. Y.
Samper, Armando, Washington, D. C.
Sandler, Robert, Baltimore
Schaeffer, Edgar A., Westminster
Schlosnagle, Eugene S., Accident
Schloss, Irvin P., Baltimore
Schlup, Lester A., Washington, D. C.
Scott, Henry I., Friendship Heights
Seifert, August A., Jr., Baltimore
Seitz, Frank L., Bowie
Seltzer, Charles P., Silver Spring
Simpkins, Lloyd L., Princess Anne
Skemp, Glenn S., Washington, D. C.
Smith, James W., Knoxville
Smith, Warren C., Woodsboro
Smith, Willis A., Forest Hill
Snesil, Jerome A., Baltimore
Sprott, George F., Cincinnati, Ohio
Squeri, Frank J., Blairstown, N. J.
Steger, Joseph M., Hyattsville
Stephens, Clyde W., Lansdowne
Stevens, James T., Barclay
Stevens, William C., Takoma Park
Stewart, Charles N., Washington, D. C.
Stringer, George F., Washington, D. C.
Sykes, Alexander R., Jessups
Talmadge, Daniel W., Cheshire, Conn.
Tessier, James L., Hyattsville
Thompson, Phillip St. C., Ellicott City
Todd, Alexander M., Jr., Dundalk
Tolson, Greydon S., Bethesda
Vanaman, John W., Gloucester, N. J.
Vicino, Dominic J., Washington, D. C.
Volbers, William A., Erie, Pa.
Ward, Maurice C., Germantown
Waugh, Christopher J., Gloucester, N. J.
Weston, Phillip H., Vienna, Va.
White, Frank F., Jr., Lanham
Whitman, Julian R., Wellesley Hills, Mass.
Williams, John R., University Park
Williams, Tilghman H., Goldsboro
Wilson, Jacqueline S., Annapolis
Wimert, Paul M., Jr., Westminster
Worthington, John D., III, Bel Air

Part Time

Arnold, Sophia B. (Mrs.), Windsor, Vermont
Barber, Charles A., Washington, D. C.
Cotter, Joseph W., Washington, D. C.
Crawford, Charles W., Washington, D. C.
Dickey, Ernest G., Baltimore
Earle, Imogene P. (Mrs.), Laurel
Eberle, Allan R., College Park
Jenkins, Eben C., Hyattsville
Lipchin, Leonard, Eastport
Matthews, Harry B., Jr., Salisbury
Mitchell, William O., Parma, Idaho
Morris, Harry R., Jr., Baldwin
Muth, Mary-Lee (Mrs.), Ellicott City
Perkins, John J., Greenbelt
Phelps, R. Nelson, New Windsor
Riggs, Francis H., Brookeville
Schleis, Joseph J., Beltsville
Spawn, William, Washington, D. C.
VanEtten, Cecil H., Beltsville
Wilcox, Marguerite S., Washington, D. C.

Unclassified

Alt, Theodore W., Washington, D. C.
Bartlett, William K., Trappe
Brown, Lewis A., Bagley
Campbell, George A., College Park
Fogle, Charles E., New Windsor
Furst, Walter A., Jr., Mt. Lebanon, Pa.
Goss, Lelia M., Lanham
Harman, William E., Accident
Hinkle, Peyton L., Washington, D. C.
Nevitt, Anna M., Washington, D. C.
Nitsch, Norbert C., Jr., Baltimore
Webb, Clay McA., Jr., Vienna

COLLEGE OF ARTS AND SCIENCES

Senior Class

Abrams, David A., Beckley, W. Va.
Aiello, Catherine C., Hyattsville
Auerbach, Lawrence W., Brooklyn, N. Y.
Axtell, Harold A., Jr., Takoma Park
Baldwin, Agnes C., Berwyn
Barre, L. Bernice, Washington, D. C.
Benavent, Belen N., San German. P. R.
Blum, Alice M., Baltimore
Blumenstein, Carl R., Washington, D. C.
Bond, Marian W., Washington, D. C.
Bond, William R., Relay
Bonnett, Howard G., Washington, D. C
Booth, Muriel M., Baltimore
Bowers, Leslie L., Washington, D. C.
Bragaw, Josephine M., Augusta, Ga.
Britton, Rose E., Washington, D. C.

Buch, Eloise A. A., Baltimore
Burk, Joseph, Woodlawn
Clark, Camille C., College Park
Cole, William P. Towson
Davis, Gayle M., St. John, N. B., Canada
Dennis, Dorothy C., Woodbury, N. J.
Dieudonne, Erasmus L., Jr., Bladensburg
Dillon, Harold, Baltimore
Dwiggins, Roscoe D., College Park
Edyvean, John H., Baltimore
Esmond, William G., Washington, D. C.
Ettin, Pearl, Teaneck, N. J.
Fawcett, Howard H., Cumberland
Fisch, Lee A., S. Orange, N. J.
Freedman, Leona S., Baltimore
Furbershaw, Olga S., Edgemoor
Gardiner, Louise St. C., Washington, D. C.
Gile, John H., Washington, D. C.
Goller, Carl, Baltimore
Greenwood, Judith K., Washington, D. C.
Griffith, Mary L., College Park
Hampshire, Evelyn L., Towson
Harrington, Mary J., Washington, D. C.
Harris, Pauline C., Elkton
Harrover, Elizabeth, Washington, D. C.
Head, Julia E., College Park
Henderson, Adrienne M., Chevy Chase
Hornstein, Audrey A., Baltimore
Hunter, Mary E., Chevy Chase
Hurley, Walter V., Hyattsville
Irvine, Ann H., Chicago, Ill.
Jett, Geraldine V., Chevy Chase
Johnston, Margaret E., Washington
Kaufman, Daniel, Washington, D. C.
King, Vernon J., Baltimore
Koenig, Ruth E., Baltimore
Kraus, John W., Catonsville
Langford, Bertha M., Washington, D. C.
Lee, Richard M., Bethesda
Legge, Martha J., Cumberland
Lehman, Milton L., Baltimore
Leonard, James D., Chevy Chase
Long, Ruth E., Salisbury
McClay, Harriette N., Hyattsville
McIndoe, Margaret R., Lonaconing
McManus, William H., Berwyn
Mintz, Milton D., Plainfield, N. J.
Palmer, Carroll F., Washington, D. C.
Parks, Joseph A., Jr., Washington, D. C.
Paterson, Bess L., Towson
Pearson, Henry R., St. George's Island
Pinas, Samuel R., Baltimore
Pyle, Mary E., Frederick
Ray, Enos, Fair Haven
Remsburg, Charles G., Berwyn
Rice, Bernard, Baltimore
Ringwald, Owen E., Hyattsville
Rochlin, Martin, Baltimore
Rubin, Ruth, Washington, D. C.
Sachs, M. Bertram, Baltimore
St. Clair, Betty D., College Park
Scheffler, Rita A., Bethesda
Seidel, David L., Takoma Park
Seligson, David, Berwyn
Sempeles, George, Baltimore
Simpson, Mary E., Trappe
Smith, Adria J., Baltimore
Souder, William H., Jr., Washington, D. C.
Soulé, Floyd A., Washington, D. C.
Sterling, Harold, Washington, D. C.
Stern, Harry W., Washington, D. C.
Terl, Armand, Baltimore
Thompson, Franklin L., Washington, D. C
Turner, Katherine L., Washington, D. C.
Ubides, Pedro F., Ponce, P. R.
Vaiden, Sara A., Baltimore
Wade, John P., Jr., Washington, D. C.
Waters, Robert W., Princess Anne
Welsh, Helen O., Hyattsville
West, William V., Chevy Chase
White, Joseph G., Baltimore
Wilson, Naomi L., Fulton

Junior Class

Adams, Adelaide C., Washington, D. C.
Anchell, Melvin, Baltimore
Arnold, Bessie L., Takoma Park
Ashman, Robert E., Baltimore
Augustine, Frances M., Seat Pleasant
Baldwin, Janet K., Berwyn
Baldwin, Ruth E. W. (Mrs.), Washington, D. C.
Beattie, Edna P., Bladensburg
Benson, Susan E., Relay
Blackman, Maulsby N., Woodside Park
BonDurant, Edgar H., Jr., Mt. Rainier
Bradley, Eleanor J., Upper Darby, Pa.
Brandt, Frederick B., Washington, D. C.
Brice, Mary E., Baltimore
Bridge, Herbert S., Takoma Park
Brill, Warren D., North Beach
Brooks, Eva, Baltimore
Campbell, Dorothy M., Riverdale
Cann, Alice V., Baltimore
Carson, Betsy J., Chevy Chase
Chaney, Jack W., Annapolis
Christensen, Edith A., Hyattsville
Cissel, Elizabeth M., Washington, D. C.
Clark, Kenneth J., Baltimore
Clark, Richard A., Alexandria, Va.
Coe, Paul M., Washington, D. C.
Coleman, Albert S., Washington, D. C.
Cook, Elmer E., Jr., Brooklyn
Curtis, Elizabeth J., Ellicott City

Dammeyer, Robert E., Annapolis
Davis, Frank I., Poolesville
Davis, Ralph F., Camp Holabird
Davy, Charles D., Washington, D. C.
Day, Margaret W., Chevy Chase
Dicus, Frances A., Arlington, Va.
Diggs, William B., Jr., Baltimore
Dorr, Charles R., Washington, D. C.
Dozier, Douglas B., Silver Spring
Drawbaugh, David G., Jr., Hagerstown
Evans, Ruth E., Baltimore
Evering, George C., Baltimore
Ewing, Lydia F., Takoma Park
Farkas, Robert W., York, Pa.
Farley, Belmont G., Washington, D. C.
Foote, Ellen C., Chevy Chase
Fox, Harvey E., Seat Pleasant
Frye, Donald H., Laurel
Genovesi, Joseph, Baltimore
Goldbeck, Clara G., Chevy Chase
Gooch, Dennie, Jr., Pulaski, Ky.
Gubnitsky, Albert, Baltimore
Guyther, J. Roy, Mechanicsville
Hamill, James E., Bethesda
Harris, Joseph, Baltimore
Harvey, Marian W., College Park
Harwood, Daniel J., Baltimore
Hellstern, Charlotte M., Teaneck, N. J.
Henderson, Mary D., Rockville
Hollingsworth, Treva F., Washington, D. C.
Hutson, Harry M., Cumberland
Ingraham, Wilson G., Washington, D. C.
Jaworski, Melvin J., Baltimore
Johnson, William P., Glen Burnie
Jones, Bobby L., Relay
Kassel, Victor, Brooklyn, N. Y.
Katz, Bertha, Washington, D. C.
Keeney, Dan F., Walkersville
Kemp, Lois V., Baltimore
Kempton, Hildreth, Lapham
Kirkman, Harriet V., Catonsville
Kress, Bernice E., Baltimore
Ksanda, Charles F., Washington, D. C.
Kuhn, Helene L., Baltimore
Lane, David, Baltimore
Lanza, Francisco M. Aguirre, P. R.
Lesley, Vernon M., Atlantic City, N. J.
Levin, Naomi H., Baltimore
Levine, Stuart C., Baltimore
Lewis, Thomas H., Maplewood, N. J.
Long, Mary V., Muncie, Ind.
Lowenthal, Jean E., New York, N. Y.
Luber, Laura E., Washington, D. C.
Madorsky, Irving, Washington, D. C.
Makover, Jeanne A., Baltimore
Mangum, Lola M., Silver Spring
Mazur, Alexander, Shelton, Conn.
McInturff, George F., Washington, D. C.
McMahon, William E., II, Washington, D. C.
Meakin, J. Leonard, Washington, D. C.
Meriam, Martha P., Kensington
Miller, Robert A., Branchville
Milloff, Bernard, Silver Spring
Moore, George C., Jr., Queen Anne
Nichols, Irene M., Washington, D. C.
Nichols, Kathryn L., Hurlock
Nielsen, Anna M., Stamford, Conn.
Norcross, Theodore W., Chevy Chase
Nowell, Ellsworth B., Linthicum Heights
Palese, John M., Baltimore
Pfeil, Edgar T., Jr., Baltimore
Pohlman, Thelma V. L., Landover
Powell, Alwyn M., Baltimore
Preble, Merle R., College Park
Raymond, Betty H., Washington, D. C.
Reid, Richard S., Chevy Chase
Rice, Alvin B., Greenwich, Conn.
Richmond, Barbara A., Chevy Chase
Richmond, Naomi M., Cottage City
Riedel, Kathryn E., Hyattsville
Robertson, Alice C., Washington, D. C.
Rogers, Jerome S., Jr., Bethesda
Royster, Patsy A., Bethesda
Ruppersberger, Marjorie E., Baltimore
Sagle, Quay J., Hagerstown
Sauerman, Edward E. K., Jr., Linthicum Heights
Schmidt, June C., Randallstown
Schuler, Walter H., Washington, D. C.
Silver, Betty J., Atlanta, Ga.
Spelsberg, Walter K., Clarksburg, W. Va.
Stapf, Shirley A., Baltimore
Sterling, James T., Washington, D. C.
Stultz, Miriam E., Braddock Heights
Talbott, Amelia M., Louisville, Ky.
Talcott, Worthington H., Washington, D. C.
Tenny, Morgan L., Garrett Park
Thompson, Talmadge S., Silver Spring
Tiller, Richard E., Washington, D. C.
Tool, Arthur Q., Jr., Takoma Park
Tulin, Molly B., Hartford, Conn.
Turner, Alice V., Washington, D. C.
Wallace, Florence M., Bethesda
Waters, Mary E., Odenton
Watson, William W., Catonsville
White, Kenneth S., Hyattsville
Whitten, John M., Annapolis
Wills, Charlie C., Jackson, Miss.
Wilson, Irene L., Mt. Rainier
Woodring, Judy W., Chevy Chase
Woodward, Charles W., Jr., Rockville
Yaffe, Stanley M., Baltimore
Yagendorf, June L., Elizabeth, N. J.
Ziegler, Paul R., Baltimore

Sophomore Class

Abell, Joseph D., Leonardtown
Abelman, Rita, Atlanta, Ga.
Aiello, Dorothy A., Hyattsville
Allen, Charles B., Towson
Amsterdam, Benjamin, Newark, N. J.
Andrews, Richard L., Kresgeville, Pa.
Ardinger, Joseph S., Jr., Catonsville
Arias, Rogelio E., Panama City, R. P.
Armstrong, Robert H., Jr., Washington, D. C.
Bacas, Harry A., Washington, D. C.
Bacharach, Carl W., Baltimore
Badenhoop, William H., Baltimore
Bailey, Read T., LaPlata
Balton, Esther E., Baltimore
Barker, Katherine E., Washington, D. C.
Barthel, Carl C., Catonsville
Baugher, Harry G., Catonsville
Beener, Randa E., Washington, D. C.
Bell, David F., Jr., Dundalk
Bell, Houston L., Williamsport
Benavent, Arturo, Jr., San German, P. R.
Bentz, Frank L., Boonsboro
Bierly, Robert F., University Park
Bindes, Louis L., Washington, D. C.
Black, William P., Charleston, W. Va.
Boggs, Mary L., Chevy Chase
Booth, William T., Salisbury
Borenstein, Frank C., Baltimore
Boston, Arnold, North Bergen, N. J.
Bowen, Gilbert C., Washington, D. C.
Bowers, Cecil D., Woodlawn
Bowling, James E., Newport
Boyd, Foster L., Washington, D. C.
Boyer, Elroy G., Rock Hall
Bradley, Robert B., Washington, D. C.
Brandes, Herbert G., Washington, D. C.
Brandt, John M., Jr., Baltimore
Brendle, William K., Baltimore
Brinckerhoff, John G., Lansdowne, Pa.
Brooks, Helen M., Rockville
Brooks, Sylvia, Annapolis
Brosius, Dorothy G., Baltimore
Brown, Norma D., Landover
Bruns, Helen A., Baltimore
Buckingham, Ritchie, Washington, D. C.
Burbage, Jean E., Berlin
Burke, Francis V., Silver Spring
Burklin, Mary W., Washington, D. C.
Burr, Marguerite E., Leonia, N. J.
Butler, Harry F., Cumberland
Byrn, Rosemary, Cambridge
Carlton, Jean F., Fair Haven
Carr, John R., Takoma Park
Cassel, Douglass W., Baltimore
Chapline, George M., Jr., Braddock Heights
Clancy, Georgia K., Takoma Park
Clark, Clara M., Takoma Park
Clark, Dorothy V., Silver Spring
Cohen, Samuel, Baltimore
Cole, Milton S., Laurel
Cook, George R., Silver Spring
Councill, Wilford A. H., Jr., Baltimore
Cragoe, John H., Washington, D. C.
Craig, Raymond E., Edmonston
Crilley, Francis J., Washington, D. C.
Criner, Ploomie E., Takoma Park
Culver, Ralph J., Washington, D. C.
Cunningham, Richard E., Washington, D. C.
Dann, Clayton S., Chevy Chase
Dantoni, Joseph L., Baltimore
Delaney, Atlee M., Charleston, W. Va.
Dennis, Elizabeth J., Ocean City
Derrick, Daniel M., Washington, D. C.
DeWitt, George A., Jr., Bethesda
Dodd, Patricia, Savannah, Ga.
Dodson, Charles M., Mt. Airy
Doukas, Harry M., Washington, D. C.
Dowd, James F., Washington, D. C.
Downey, Hugh P., Washington, D. C.
Dunbar, Leslie W., Baltimore
Duty, Mary C., Baltimore
Easter, Donald P., Washington, D. C.
Edson, Donald C., Billings, Montana
Ehman, Shirley A., Flushing, N. Y.
Eichhorn, Henry C., Jr., Baltimore
Einbinder, S. Anita, Hagerstown
Eisele, Charlotte, Bethesda
Eleder, Dorothea, Baltimore
England, Collin B., Washington, D. C.
England, Helen T., Rockville
England, William H., Washington, D. C.
Fairbanks, Garland W., Baltimore
Farina, Yolanda L., Schenectady
Feldman, E. Harriet, Salisbury
Filgate, George E. D., Washington, D. C.
Fisher, Allan C., Cumberland
Frothingham, James R., Jr., Hyattsville
Fulford, Robert F., Baltimore
Galt, Dwight B., Jr., Hyattsville
Garrett, Marshall J., Washington, D. C.
Gassaway, Franklin D., Clarksdale, Arizona
Gay-Lord, Henry L., Baltimore
Gehman, Jonathan F., Brentwood
Gendason, Daniel L., Washington, D. C.
Gerwig, Doris L., Ellicott City
Glenn, Carmela A., Washington, D. C.
Goff, Russell H., Washington, D. C.
Goldblatt, Hyman, Washington, D. C.
Goode, Eloise J., Maddox

Goodgal, Sol H., Baltimore
Gordner, Louise E., Jerseytown, Pa.
Greenip, John F., Washington, D. C.
Grigg, Walter K., Albany, N. Y.
Grollman, Jerome, Baltimore
Groves, Doris E., Waldorf
Hall, Bruce M., College Park
Hampshire, Doris L., Towson
Hance, John C., Washington, N. J.
Handler, Chester J., Washington, D. C.
Hanlon, Lucile A., Baltimore
Hardey, James W., Chevy Chase
Harn, John N., Baltimore
Harris, Dorothy M., Washington, D. C.
Harris, LeRoy S., Damascus
Hartman, James H., Jr., Jacksonville, Fla.
Harzenstein, Maxine, Washington, D. C.
Harzenstein, Phyllis, Washington,, D. C.
Havens, Phyllis L., Kensington
Hayden, Richard C., Chevy Chase
Hayman, John B., Jr., Pocomoke
Hazard, Alfred S., Takoma Park
Hein, Charles LeR., Glen Burnie
Hendrickson, Lillian D., Valley Stream, N. Y.
Henry, Robert C., College Park
Hermann, Adelheid M., Lansdowne
Herrmann, Albert C., Baltimore
Heslop, Robert W., Mt. Rainier
Hevener, K. Hope, Gambrills
Hewitt, Barton G., Baltimore
Hill, Harry E., Baltimore
Hisaw, Lois L., Belmont, Mass.
Hoen, Anne G., Glyndon
Hohouser, Henry S., Washington, D. C.
Holbrook, William A., College Park
Howard, Jane C., University Park
Hughes, Doris, Chevy Chase
Hughes, Erma K., Chevy Chase
Hughes, Mary K., Quincy, Illinois
Hurwitz, Hyman, Annapolis
Hutchins, Miriam E., Barstow
Huyck, Marjorie E., Baltimore
Hyde, Myra K., Washington, D. C.
Hyman, Gilmore, Brooklyn, N. Y.
Inches, Robert W., Laytonsville
Insler, Robert S., Baltimore
Isaacs, William H., Washington, D. C.
Jacobs, Irving, Port Chester, N. Y.
Jacques, Julia M., Smithsburg
James, Helen A., Silver Spring
Jefferys, Wilbur T., Washington, D. C.
Johnson, Robert W., Baltimore
Johnston, Corinne C., Washington, D. C.
Jones, Charles M., Cumberland
Jones, James E., Baltimore
Jones, John W., Jr., Baltimore
Jope, Clifford H., Washington, D. C.
Kagle, Helen J., Owings Mills
Kaiser, Julius A., Kensington
Kaplan, Harry E., Washington, D. C.
Katzenberger, William L., Catonsville
Keeny, Roy E., Mt. Rainier
Keller, Vivian E., Riverdale
Kennard, Katherine E., Washington, D. C.
Kennedy, Marie L., Baltimore
Kerwin, Walter J., Bennings Station, D. C.
Kiefer, Alice V., Catonsville
Kiernan, Harry D., Jr., East Haven, Conn.
Kindler, Daniel, Passaic, N. J.
King, Nancy R., Annapolis
Kluge, Doris V., Washington, D. C.
Knight, Anza P., Baltimore
Koehler, Walter O., Washington, D. C.
Kurzenknabe, Catherine E., Harrisburg, Pa.
Kuslovitz, Irene E., Baltimore
Kypta, Harold A., Washington, D. C.
Landy, William C., Clifton, N. J.
Lank, Murrell C., Washington, D. C.
Lansdale, Thomas F., Sandy Spring
Lawrie, David R., Silver Spring
Lebeck, Clara G., Cumberland
Leith, Lahoma, Hyattsville
Lempke, Charles T., Cottage City
Lewis, John H., Jr., Washington, D. C.
Lieberman, Gladys R., Jersey City, N. J.
Livingston, Paul S., Washington, D. C.
Lynch, Betty S., Baltimore
Lyon, Rosalie T., Hyattsville
Machen, Valentine, Washington, D. C.
Martin, Cecil R., Smithsburg
Martin, James A., Emmitsburg
Matheke, Joan B., Newark, N. J.
Maxwell, George A., Severna Park
Maxwell, Ula V., Salem, W. Va.
McCardell, Ethel C., Hagerstown
McCarty, Barbara I., Washington, D. C.
McCauley, Harry R., Jr., Baltimore
McDevitt, Richard C., Baltimore
McHale, Richard F., Washington, D. C.
McKeever, Robert L., Silver Spring
McKinley, Anne C., Washington, D. C.
McLaughlin, John L., Yonkers, N. Y.
Mead, James M., Washington, D. C.
Meade, Arthur C., Baltimore
Meanley, Brooke, Baltimore
Meginniss, Stephen M., II, Baltimore
Mehl, Charlson I., Washington, D. C.
Mercer, L. Louise, Landover
Millikan, Mary, Washington, D. C.
Mintzer, Donald W., Ocean City, N. J.
Mitchell, John W., Baltimore
Moon, Arthur P., Silver Spring
Moon, Joan M., Silver Spring
Moriarty, Eugene H., Chicago, Ill.

Morris, Charles B., Delmar
Morton, John, Mt. Airy
Mosberg, William H., Jr., Baltimore
Neal, Walter L., Frostburg
Nichols, Helen E., Baltimore
Nichols, William J., College Park
Nichter, Harry F., Jr., Takoma Park
Norment, Richard B., Hagerstown
Norton, Alfred S., Washington, D. C.
Ochek, George Z., New Brunswick, N. J.
Ochsenreiter, Eugene C., Chevy Chase
Olmstead, Merlin E., Anacostia
O'Neil, Eileen D., Washington, D. C.
Oursler, Mildred E., Jessup
Patrick, Mary R., Westernport
Patton, Jack D., Edgewood
Pearson, Elmire, Chevy Chase
Pennella, Michael, Washington, D. C.
Perkins, Katharine, Baltimore
Pierpont, Edwin L., Woodlawn
Pinkerton, William F., Halethorpe
Podolsky, William G., Baltimore
Polikoff, Marvin, Baltimore
Poole, Victor H., Baltimore
Porter, Bettie V., Silver Spring
Prentice, Gerald E., Hyattsville
Price, Edward H., Frostburg
Prince, Jessie C., Washington, D. C.
Prinz, John W., Jr., Baltimore
Prostic, Abraham, Baltimore
Punte, Charles L., Baltimore
Rabenhorst, Daniel C., Washington, D. C.
Ramsey, Roy S., Jr., Hyattsville
Rau, Hammond, Brunswick
Rawls, Estelle H., Kensington
Reed, Nancy S., Schenectady, N. Y.
Reinstedt, Beverly J., Valley Stream, N. Y.
Reynolds, Orr E., Washington, D. C.
Rice, Imogene L., Edgewood Arsenal
Ricketts, Sarah A., Catonsville
Riley, Eugene J., Sparrows Point
Ritzenberg, Albert, Friendship, D. C.
Roberts, Floyd B., Baltimore
Roberts, Frances A., Washington, D. C.
Roelke, Margaret E., Brunswick
Rolfes, Harry F., Mt. Rainier
Roseman, Morris, Baltimore
Rowe, Abner T., Washington, D. C.
Rowe, Dora M., Brentwood
Rowe, William B., Washington, D. C.
Royal, Doyle P., Washington, D. C.
Rubin, Lillian R., Washington, D. C.
Ryon, Ann E., Springfield, Mo.
Sachs, Harris H., Bladensburg
Sack, Margaret E., Baltimore
Sandman, Harriet M., Rockville Center, N. Y.
Santaniello, Nick J., College Park
Schindel, Katherine M., Catonsville
Schmidt, Earl W., Catonsville
Schultz, Lenora, Lynbrook, N. Y.
Scott, John L., Jr., Catonsville
Seymore, George, Washington, D. C.
Shaw, Charles E., Jr., Cumberland
Shaw, David, College Park
Shay, Clarence M., Mt. Vernon, N. Y.
Shelton, Martha H., Chevy Chase, D. C.
Shepsle, Philip L., Washington, D. C.
Sheridan, David L., New York, N. Y.
Shirey, Orville C., Cumberland
Shuman, Beatrice, Scotland
Simms, Charles F., Bel Alton
Simonds, Warren O., Hyattsville
Simons, George M., Cumberland
Skill, Elizabeth P., Homestead, Fla.
Skipton, Roy K., Mt. Rainier
Slee, Helen W., Bethesda
Sleeth, Annarose C., University Park
Smith, Frank B., Chevy Chase
Sparhawk, Martha L., Washington, D. C.
Sparrow, Clifford V., Washington, D. C.
Staggers, Delores, Laurel
Stavitsky, Edward J., Newark, N. J.
Steele, Robert B., Baltimore
Steinbach, Harvey B., Baltimore
Steinberg, Stanley H., Washington, D. C.
Stell, Theodore J., Washington, D. C.
Stevan, Mitchell S., College Park
Stichel, Frederick L., Jr., Catonsville
Stone, Bette R., Baltimore
Stone, John H., Waldorf
Stotler, Frances I., Baltimore
Stowell, Ruth E., Friendship, D. C.
Stuart, LaRhett L., Washington, D. C.
Sullivan, Richard C., Baltimore
Teller, Leslie W., Chevy Chase
Teubner, Ray C., Ellicott City
Trimble, Ernest C., Mt. Savage
Trussell, Howard M., New York, N. Y.
Tryon, Max, Washington, D. C.
Turner, Roy B., Washington, D. C.
Tuttle, Samuel D., Baltimore
Vandegrift, Edward W., Greensboro
Van Horn, Robert L., Baltimore
Van Huizen, Adrian H., Mt. Rainier
Vial, Theodore M., Riverdale
Waldo, Willis H., Silver Spring
Walton, Edward, Washington, D. C.
Watson, Betty J., Forest Glenn
Weare, Josephine W., Washington, D. C.
Webster, Harvey O., Linthicum
Weintraub, Joseph, Baltimore
Wiggins, Robert A., Washington, D. C.
Wilberger, Yvonne M., Indian Head
Wilcox, Iasca J., College Park
Wilds, Howard F., Jr., Baltimore

Williams, Frances D., Cumberland
Williams, William O., Woodstock
Winter, Franklin R., Baltimore
Wlodkowski, Edward M., Baltimore
Woodward, Arthur F., Rockville
Wright, Robert H., Greensboro
Wyche, Crosby, Charlotte Hall
Wyvell, Janet E., Highland
Yates, Sarah J., Alexandria, Va.
Yesbek, William R., Washington, D. C.
Yowell, William B., Jr., Washington, D. C.
Ziegler, Mary T., Washington, D. C.
Zinberg, Norman E., Baltimore
Zitreen, Zelda, Freeport, N. Y.

Freshman Class

Abbadessa, Joan B., Mt. Rainier
Acker, Ellsworth G., Baltimore
Adams, John F., Washington, D. C.
Adlesberger, Elsie L., Emmitsburg
Allan, Selma J., Woodbury, N. J.
Alvord, Dorothy M., Silver Spring
Andrews, Rodney D., Washington, D. C.
Angelakos, John G., Somerville, N. J.
Anthony, Louis E. B., Chestertown
Apuzzio, John L., Elizabeth, N. J.
Arabian, Mary, Baltimore
Ardis, Barbara M., Snow Hill
Auslund, Anna V., Takoma Park
Bach, Frederick L., Washington, D. C.
Bachrach, Stanley M., Washington, D. C.
Bageant, A. Granville, Washington, D. C.
Baker, Muriel L., Upper Montclair, N. J.
Banfill, Margaret M., Washington, D. C.
Barker, David H., Washington, D. C.
Barsky, Ruth P., Mount Vernon, N. Y.
Baylin, Cynthia, Baltimore
Beale, Lorraine E., Washington, D. C.
Bechtold, Charles A., Laurel
Bell, Helen, Hyattsville
Benecke, John F., Baltimore
Bennett, Edith M., California
Benson, Richard V., Silver Spring
Berman, Alvin M., Baltimore
Berman, Shirley M., Baltimore
Bickford, Frederick H. C., Jr., Clinton
Bierbusch, Marcella M., Takoma Park
Blamire, William B., Washington, D. C.
Bloede, Victor G., Catonsville
Bonham, Mary C., Greenbelt
Bonifant, Alfred D., Silver Spring
Booher, Phyllis J., Marion, Ind.
Bowers, William T., Riverdale
Bowman, David J., Washington, D. C.
Bowman, Doris W., Baltimore
Bowman, Valera M., Baltimore
Bradshaw, Raymond, Riverdale
Brigham, Majorie A., Rockville
Brigham, Ruth M., Landover
Brooks, Lionel, Annapolis
Brown, David C., Milford, Conn.
Brown, Irene M., Fort Meade
Brown, Margaret H., Baltimore
Brown, Warren F., Mt. Rainier
Bryant, Thomas E., Franklin, Pa.
Buckner, Louise P., Takoma Park
Bullard, Perry C., Washington, D. C.
Bullard, Robert E., Takoma Park
Bumann, Theodore J., Washington, D. C.
Burall, Lois M., Myersville
Byrne, Robert F., Silver Spring
Byrnes, Edward J., Baltimore
Callender, George R., Jr., Washington, D. C.
Cameron, Lorna L., Harpers Ferry, W. Va.
Cano, Harold V., Elizabeth, N. J.
Carhart, Herbert G., Jr., Washington, D. C.
Carroll, Vivian M., Long Branch, N. J.
Carson, Thomas E., Towson
Carter, Harry G., Baltimore
Carter, Sara E., Annapolis
Chambers, Berniece B., Washington, D. C.
Chambers, David H., Catonsville
Chandler, Earl N. Chevy Chase
Chmar, Paul, Rockville
Clark, Elizabeth J., Takoma Park
Clark, Mary A., Washington, D. C.
Clarke, A. Slater, Washington, D. C.
Clarke, Margaret S., Brentwood
Clinite, Caroline E., Silver Spring
Cochrane, William K., Pittsburgh, Pa.
Cohn, Richard H., Newark, N. J.
Collins, John M., Bennings, D. C.
Colvin, Walter H., Jr., Washington, D. C.
Compton, Vera J., Cumberland.
Connor, Berenice E., Margate City, N. J.
Cook, Coleman B., Jr., Baltimore
Cooper, Jane M., Baltimore
Copenhaver, Cleo V., Street
Corkran, Davis H., Glen Burnie
Cosimano, Stephen J., Washington, D. C.
Coyle, Bernard J., Jr., Upper Marlboro
Crawford, William K., Laurel
Criswell, Ann E., Hyattsville
Criswell, Robert B., Hyattsville
Cullen, Gilbert H., Baltimore
Dalton, Ruth O., New Haven, Conn.
Davidson, Frances A., Baltimore
Davis, Clifford H., Takoma Park
Davis, Dorothy L., Silver Spring
DeLadrier, André R., Annapolis

Dennis, John M., Willards
Dickinson, Barbara W., Chevy Chase
Diehl, John F., Hagerstown
Diener, Margaret M., Washington, D. C.
Dixon, William E., Edgewater
Donahue, Douglas M., Baltimore
Draper, Doris L., Hyattsville
DuBois, William F., Jr., Woodside Park
Dudrow, Ralph C., Jr., Hyattsville
Duncan, Eunice C., Washington, D. C.
Dunham, John N., Northville, N. Y.
Eanes, Frances E., Richmond, Va.
Eareckson, William M., Baltimore
Eastwood, Vincent F., Baltimore
Eaton, Jay W., Bethesda
Eckam, Marietta C., Island Creek
Edsall, Marjorie M., East Orange, N. J.
Elgin, Joseph F., Hagerstown
Engel, Richard A., Bloomfield, N. J.
Eno, Evelyn B., Washington, D. C.
Ettin, Elaine N., Harlan, Ky.
Evert, Jacqueline L., University Park
Fanning, Wallace R., University Park
Fardwell, Charles L., Baltimore
Fazzalari, Paul V., Oakland
Ferry, Charles H., Washington, D. C.
Fertig, Natalie, New York, N. Y.
Finkelstein, Hortense E., Wilmington, N. C.
Flaks, Rosadean, Baltimore
Fletcher, Adelaide S., Hyattsville
Flom, Elsie M., Baltimore
Formhals, Christian A., Baltimore
France, Bruce A., Hyattsville
Franklin, Ann, Chevy Chase
Freedman, Leonard S., Baltimore
Frey, Rita C., Catonsville
Friedrich, Charles, Jr., Kensington
Frisbie, Margaret E., Chevy Chase
Fugitt, Howard D., Bennings, D. C.
Garrett, Mary M., Rockville
Gaston, Janet D., Baltimore
Gelof, Sara S., Wilmington, Del.
Gershenson, Betty, Baltimore
Gervasio, Joseph P., Washington, D. C.
Getty, Sara L., Wayne, Pa.
Gilfix, Roy H., Chevy Chase
Glaser, Seena S., Washington, D. C.
Goldman, Daniel W., Washington, D. C.
Goldstein, Albert E., Jr., Baltimore
Goodman, Muriel H., Washington, D. C.
Gordon, Janet G., Summit, N. J.
Gray, Ellen F., Chevy Chase
Green, Larry Q., Riverdale
Guild, Arla G., Baltimore
Gumnick, Karl F., Baltimore
Gundlach, Lucy J., New York, N. Y.
Guy, Ernest C., Washington, D. C.
Guy, Jean F., Washington, D. C.
Guyther, Robert O., Mechanicsville
Hadder, John C., East Hampton, N. Y.
Hall, Gene L., Washington, D. C.
Hall, Jeanne F., Brentwood
Hallett, Charles B., Cynwyd, Pa.
Hancock, John C., Washington, D. C.
Hand, Leon M., Washington, D. C.
Hanna, Burton E., Baltimore
Hansson, Barbro D., Baltimore
Hardie, Dorothy P., Harrisburg, Pa.
Harris, Carl A., Washington, D. C.
Harwitz, Norman P., Baltimore
Hastings, Charles R., Baltimore
Herson, Ruth M., College Heights
Hettinger, Ora L., Baltimore
Hidnert, Frances E., Washington, D. C.
Hines, Constance N., Elkridge
Hoagland, Ralph, Jr., Washington, D. C.
Hoffmaster, Betty E., Brunswick
Hoffmaster, Margaret L., Funkstown
Holland, Nancy B., Cumberland
House, Norman M., Riverdale
Hyder, Martin S. W., Seat Pleasant
Ireland, Robert W., Washington, D. C.
Jack, William G., Port Deposit
Jacobs, Irwin S., Washington, D. C.
Jacobs, Robert P., Washington, D. C.
Jacoby, Betty C., Washington, D. C.
Janof, Marie M., Washington, D. C.
Johnson, Frederick M., Takoma Park
Johnson, Gwendolyn, Washington, D. C.
Johnston, Virginia T., Washington, D. C.
Jones, Charles I., Jr., Snow Hill
Jones, Henry E., Washington, D. C.
Joyce, Margaret A., Hyattsville
Karr, Harry A., Washington, D. C.
Karro, Jeannette, Washington, D. C.
Kauch, Robert, Bethesda
Kavanaugh, Emmett P., Jr., Ellicott City
Keith, Deane E., Greenbelt
Kelley, George G., Bozman
Kellman, Miriam D., Baltimore
Kelly, Alexander P., Jr., Edgewood Arsenal
Kelly, Tom S., Salisbury
Kelso, Arthur D., Linthicum Heights
Kempton, Margaret J., Lanham
Kennedy, Frances J., Takoma Park
Kenney, Kathryn C., Chevy Chase
Kerpen, Julian, New York, N. Y.
Kerr, Alice, Washington, D. C.
Kiefer, Lester, Baltimore
Klebold, Mabel, Washington, D. C.
Klein, Judah B., Brooklyn, N. Y.
Kuenstle, George F., Washington, D. C.
Lacey, Donald E., Chevy Chase
Lakeman, William, Edgewater

Lambert, Henry D., Washington, D. C.
Langford, Taylor M., Jr., Greenbelt
Lawrence, William H., Washington, D. C.
Lemen, Daniel B., Williamsport
Levy, Audrey B., Washington, D. C.
Liebman, Leonard, Washington, D. C.
Lincoln, Judson D., Takoma Park
Lindamood, Joseph G., Jr., Laurel
Linthicum, Charles M., Linthicum Heights
Litman, Arnold D., Baltimore
Logsdon, John W., Balboa, Canal Zone
Loker, William M., Leonardtown
Loomis, Malcolm L., Washington, D. C.
Ludwig, Margaret M., Sparrows Point
Lynch, James, Takoma Park
Macnemar, Dunbar B., Millersville
Macpherson, Alan C., Washington, D. C.
Marbury, Mildred R., Chevy Chase
Margolis, Isadore E., Baltimore
Martin, Mary K., Washington, D. C.
Massé, Doris J., Woodmere, N. Y.
Masters, Nancy, Glen Burnie
Mattingley, William H., Washington, D. C.
Maxson, Frank T., Jr., Cranford, N. J.
Maxwell, Anne L., Frederick
Maxwell, Jerome L., Washington, D. C.
Mazur, George J., Bridgeport, Conn.
McCann, Majorie E., Rutland Heights, Mass.
McCathran, Margaret E., Washington, D. C.
McCauley, Elizabeth J., Maugansville
McCeney, Thomas S., Silver Spring
McIntyre, Kenneth H., Hampton, Va.
McKinley, Harry C., Hancock
Meade, John P., College Park
Meenehan, John F., Washington, D. C.
Melton, Gene H., Washington, D. C.
Merican, Alma R., Baltimore
Merriken, William S., Denton
Mezzanotte, Matthew N., Washington, D. C.
Miller, Muriel E., Baltimore
Miller, Robert J., Severna Park
Milstead, Valgene M., Indian Head
Mintzer, Joseph H., Catskill, N. Y.
Mitchell, Jacqueline L., Washington, D. C.
Montuori, Carl F., Washington, D. C.
Mullen, Richard F., Chevy Chase
Mundy, Elizabeth A., Baltimore
Murray, John E., Washington, D. C.
Naron, Mildred D., Baltimore
Nelson, Dorothy J., East Riverdale Heights
Neumann, John W., Silver Spring
Newgarden, Paul W., Washington, D. C.
Newton, Edward G., Princess Anne
Nicoll, Betty B., Laurel
Nixon, Robert L., Jr., Washington, D. C.
Noel, Lloyd S., Hagerstown
Nordby, Robert C., Washington, D. C.
Novak, Andrew J., Annapolis
Ogden, Ellen A., Baltimore
Orr, Martha J., Fort Meade
Orwitz, Morton H., Atlantic City, N. J.
Ovitt, Harry C., Chevy Chase
Paganelli, Vitale X., Orange, N. J.
Park, William F., Rutland, Mass.
Parry, Francis A., Washington, D. C.
Paterson, Bertha A., Towson
Patterson, Shirley A., Washington, D. C.
Pavesich, Frances E., Baltimore
Payne, Thomas A., Washington, D. C.
Pearce, William H., Hyattsville
Peck, Richard M., Damascus
Petzold, Robert W., Silver Spring
Pickering, Arada E., Hagerstown
Pickett, Betty R., Woodbine
Pittle, Robert M., Washington, D. C.
Podolsky, Dolly, Baltimore
Port, William L., Baltimore
Ports, Kenneth L., Walkerville
Powell, Arlys J., Sarasota, Fla.
Preisser, Warren G., Washington, D. C.
Price, John R., Timonium
Primm, Florence, Washington, D. C.
Pringle, Audrey L., College Park
Radin, Mildred, New York, N. Y.
Ramirez, Dixon, Cabo Rojo, P. R.
Rands, Robert D., Jr., Washington, D. C.
Rice, Daniel G., Anacostia, D. C.
Riley, Margaret E., Silver Spring
Roark, Bruce A., Cabin John
Robinson, Martha J., Baltimore
Rosengluth, Arlene, Far Rockaway, N. Y.
Rothenbach, Emma M., Teaneck, N. J.
Rothstein, Jack, Baltimore
Royal, Nancy T., Worcester, Mass.
Rubey, Susie L., Friendship, D. C.
Rubin, Charlotte, Columbia, S. C.
Ruff, Mary E., Randallstown
Rutledge, Herbert W., Takoma Park
Ryon, John F., Riverdale
Sachs, Shirley, Washington, D. C.
Sagner, Alan L., Baltimore
Sands, Dorothy M., Baltimore
Savoy, Joycelyn L., Mamou, La.
Schauman, Clarence A., II, Baltimore
Schreiner, Raymond L., Washington, D. C.
Seidman, Harold L., Baltimore
Shansey, George T., Washington, D. C.
Shapiro, David, Washington, D. C.
Shaver, Olen L., Silver Spring
Sheely, Kathryn G., Baltimore
Sherman, Shirley C., Flushing, N. Y.
Sherwood, Ralph H., Washington, D. C.

Shifler, Hubert I., Jr., Hagerstown
Shoemaker, Henry R., Frederick
Shook, Yvonne E., Baltimore
Shorser, Natalie I., West New York, N. J.
Showacre, Jane L., Cumberland
Sislen, Arthur A., Washington, D. C.
Skladowsky, Mary L., Baltimore
Small, James G., University Park
Smith, Beverly J., Nutley, N. J.
Smith, Cuddy S., Baltimore
Smith, DeWitt C., Jr., Bethesda
Smith, Evelyn, North East
Smith, Florence, Brooklyn, N. Y.
Snitzer, Beverly A., Baltimore
Some, Seymour J., Newark, N. J.
Spangler, William A., Washington, D. C.
Starr, Shirley M., Washington, D. C.
Stedman, William P., Catonsville
Stellhorn, William H., Jr., Baltimore
Sterling, Ernest A., Silver Spring
Sterling, Wilfred R., Washington, D. C.
Stevens, Gene C., Washington, D. C.
Stevens, Wilbert, Catonsville
Stewart, William S., Washington, D. C.
Stribling, Alice L., Washington, D. C.
Suit, Lois G., College Park
Tabor, John A., Winchester, Ky.
Teel, George R., White Hall
Tennant, Irma A., Washington, D. C.
Thompson, Mary F., Rockville
Torvestad, Robert J., Colmar Manor
Touchet, Mary L., Silver Spring
Treder, Jean A., Scotia, N. Y.
Trinkel, Florence E., Providence, R. I.
Tromba, Francis, Ozone Park, N. Y.
Tupy, Joseph L., Washington, D. C.
Uhland, Homer E., Washington, D. C.
Uzzell, Vernon R., Woodlawn
Vandenberg, Milton H., Towson
Vecere, Richard E., Trenton, N. J.
Voorhees, Robert DeH., Manasquan, N. J.
Walker, John S., Silver Spring
Ward, Elizabeth F., Darlington
Warder, Frederic B., Chevy Chase
Waring, Edward J., Jr., Leonardtown
Waters, James B., Washington, D. C.
Weakley, Emma J., Annapolis
Webb, Claude A., Jr., Hyattsville
Weber, Harriet W., Washington, D. C.
Weisberg, Sonia, Baltimore
Wells, Martha J., Washington, D. C.
Werner, Gunther A., Towson
Weston, Glen E., College Park
Wheeler, William F., Hampstead
White, Ira, Hyattsville
Whitman, Claire S., Laurel
Wienecke, Edward L., Jr., Baltimore
Wilkins, Bernard, Mt. Airy
Williams, Emma K., Washington, D. C.
Williams, Louis S., Daysboro, Del.
Wills, Jacque L., Baltimore
Wix, George B., New York, N. Y.
Wolfe, Charles R., Washington ,D. C.
Wolfe, Clarence E., Smithsburg
Worgan, John M., Luke
Workman, Selma J., Mt. Vernon, N. Y.
Yeager, Mary A., Hagerstown
Yost, Charles M., Woodlawn
Young, Eliot R., Chevy Chase
Young, Harry H., Bethesda
Young, Robbie V., Washington, D. C.
Ziegler, Harry A., Easton
Zimmer, David J., Takoma Park
Zimmerman, Beverly D., Providence, R. I.

Part Time

Alden, William H., Silver Spring
Barthel, William F., College Park
Bates, Virginia B. (Mrs.), Bethesda
Birmingham, Alfred N., Washington, D. C.
Carnig, Paul T., Takoma Park
Casbarian, Louise W. (Mrs.), Riverdale
Cohen, Milton J., Washington, D. C.
Dudas, Michael, Landover
Ferguson, Don S., Washington, D. C.
Fuerst, Robert G., Riverdale
Garrett, Clyde W. G., Eastland, Texas
Gotsis, Helen D., Washington, D. C.
Green, Maryan A., Hyattsville
Hansen, Harold, Takoma Park
Jinkins, May R. (Mrs.), Arlington, Va.
Lane, Martha W. (Mrs.), Takoma Park
Larner, Charles D., Silver Spring
Michaelson, Ernest, Bladensburg
Murphy, Julian G., Forest Glen
Murray, Banks A., Silver Spring
Nicolet, Kathryn, Riverdale
Rollow, Douglas Jr., Washington, D. C.
Schmidt, Norman B., College Park
Villa, Marguerite M. (Mrs.), Port au Prince, Haiti
Wiseman, Leon R., Washington, D. C.
Witt, Franklyn, Washington, D. C.

Unclassified

Baido, James, Baltimore
Bagby, William W., Annapolis
Bailey, Marguerite P., Silver Spring
Bartlett, Barbara L., Washington, D. C.
Butler, James H., Jr., Baltimore
Calomiris, Catherine, Washington, D. C.
Carlson, Adele S. (Mrs.), Annapolis
Hager, William D., Frostburg
Hammer, Ralph C., Cumberland
Martin, Gerard J., Annapolis
McAuliffe, William I., Great Neck, N. Y.
Miller, Margaret E., Princess Anne
Ricketts, Matilda J., Catonsville
Ryan, James H., Long Beach, N. Y.
Simpson, Edgar A., Baltimore
Sutherland, David L., Franklin, Pa.
Turk, Irma L., Riderwood

COLLEGE OF COMMERCE

Senior Class

Allen, George D., Takoma Park
Askin, Nathan, Baltimore
Badenhoop, Herman J., Baltimore
Beamer, Francis X., Washington, D. C.
Borden, Burton D., Washington, D. C.
Brown, Robert S., Hazleton, Pa.
Brown, William E., Jr., Brooklyn, N. Y.
Burns, Robert B., Havre de Grace
Chaney, Robert J., College Park
Cook, Harry I., Hyattsville
Coyle, Margaret L., Upper Marlboro
Crisafull, Joseph, Washington, D. C.
Davis, Aloyuise I., Havre de Grace
Davis, W. Bruce, Silver Spring
Dieffenbach, Albert W., Garrett Park
Disharoon, Charles R., Salisbury
Dorfman, Sidney A., Washington, D. C.
Duff, Edward H., Tall Timbers
Flax, George L., Washington, D. C.
Hambleton, Harry B., Jr., Washington, D. C.
Harlan, Edwin F., Riverdale
Harris, Sam, Baltimore
Healey, James W., Hagerstown
Hughes, Fred J., Jr., Chevy Chase
Hutton, Carroll S., Baltimore
Ireland, Julius W., Baltimore
Kemper, James D., Washington, D. C.
Kendall, Charles W., Dundalk
Kummer, Stanley T., Baltimore
Lawrence, George E., Hanover, Pa.
LeFrak, Samuel J., Brooklyn, N. Y.
Magruder, Ruth T., Washington, D. C.
Peregoff, Arthur, Frederick
Phillips, Jay M., Baltimore
Race, Thornton C., Chevy Chase
Rittase, Billie J., Cumberland
Skotnicki, Frank J., Hazleton, Pa.
Springer, Earl V., Hagerstown
Steinberg, Douglas S., College Park
Thompson, Charles L., Baltimore
Tyser, Ralph J., Baltimore
Valenstein, Murray A., Baltimore
Vollmer, Harry F., III, Baltimore
Weber, N. Bond, Oakland
Wyatt, Henry F., Baltimore
Young, Herbert S., Washington, D. C.

Junior Class

Altschuler, Leon, Washington, D. C.
Anspon, Bert W., Jr., Washington, D. C.
Aymold, Bernard L., Jr., Baltimore
Barr, Charles M., Easton
Bastian, Charles W., Jr., Washington, D. C.
Boice, John E., Jr., Washington, D. C.
Burke, Robert, Hyattsville
Carey, Frank W., Jr., Dundalk
Chandler, Edmond T., Westmoreland Hills
Clunk, John J., Hyattsville
Corridon, Donald C., Washington, D. C.
Daiker, John A., Washington, D. C.
Detorie, Francis J., Washington, D. C.
Dwyer, Frank A., Baltimore
Ehrlich, Raphael H., Washington, D. C.
Ehudin, Herman, Baltimore
Frey, Ralph W., Jr., Mt. Rainier
Gantz, Guy G., Hagerstown
Grier, Jack G., Towson
Gunter, John B., Jr., Johnstown, Pa.
Heyer, Frank N., Baltimore
Himelfarb, Norman H., Washington, D. C.
Hodges, Raymond L., St. Inigoes
Holzapfel, Norman McC., Hagerstown
Hopps, William J., Baltimore
Howard, Eugene, Baltimore
Hutchinson, Richard F., Chevy Chase
Jansson, George A. W., Jr., Baltimore
Jarboe, Paul E., Mechanicsville
Joyce, Joseph M., Hyattsville
Katz, Leonard R., New York, N. Y.
Kephart, George O., Takoma Park

King, Laura F., Savage
Lewis, John E., Silver Spring
Lloyd, Edward M., Washington, D. C.
Mears, Frank D., Pocomoke
Mueller, John L., Baltimore
Mulitz, Ben S., Capitol Heights
Oswald, Huyette B., College Park
Peacock, Franklin K., Takoma Park
Reckord, John G., Baltimore
Rice, Robert C., Jefferson
Salganik, Alvin C., Baltimore
Sánchiz, José C., Panama City, R. P.
Saum, Robert W., Lanham
Senseman, Rodney LaV., Silver Spring
Shields, Leonard J., Atlantic City, N. J.
Silverman, Norman H., Washington, D. C.
Skeen, Richard T., Baltimore
Stuver, Richard L., Washington, D. C.
Tilles, Norman D., Baltimore
Valenti, Gino, Washington, D. C.
Wagner, Ernest G., Hyattsville
Weathersbee, David R., Washington, D. C.
Worthington, Raymond L., New Milford, Conn.

Sophomore Class

Aitcheson, William W., Berwyn
Allnutt, Richard C., Germantown
Altmann, Andrew T., Baltimore
Ander, Marvin H., Baltimore
Arosemena, Conrado A., Panama City, R. P.
Ayres, Robert R., Jr., Baltimore
Baker, Rudell B., Damascus
Bennett, John M., Baltimore
Berlin, Joseph G., Washington, D. C.
Berman, Sidney M., Baltimore
Boswell, Harry A., Hyattsville
Bradley, Alan T., Baltimore
Bugos, Paul E., Greenbelt
Burges, Sam H., Takoma Park
Burnside, James B., Washington, D. C.
Carry, Albert J., Washington, D. C.
Cartee, Robert S., Jr., Hagerstown
Chamberlin, Garwood, Chevy Chase
Cherry, Jack F., Washington, D. C.
Cohen, Morton G., Baltimore
Condon, Robert D., Baltimore
Cooper, William I., Colonial Beach, Va.
Custis, John K., Washington, D. C.
Damuth, Donald R., Baltimore
Diamond, William C., Gaithersburg
DiBlasi, Francis P., Bethesda
Dorn, Robert L., Riverdale
Dunn, Charles W., Riverdale
Dunn, James E., Washington, D. C.
DuVall, Jacque B., Bethesda
Emrey, Jay C., Colora
Engel, Mary L., Washington, D. C.
Eyler, John D., Jr., Baltimore
Fanning, James A., College Park
Filbry, H. William, Annapolis
Forsberg, Robert A., Rockville
Garlitz, Vincent LeR., Cumberland
Gillett, Donald M., Washington, D. C.
Ginsburg, Abraham, Brooklyn, N. Y.
Gransee, Vern H., Linthicum Heights
Grover, Dunreath O., Washington, D. C.
Hales, L. Roman, Pasadena
Hall, Kenneth D., Washington, D. C.
Hambleton, James A., Washington, D. C.
Hancock, Charles W., Baltimore
Hathaway, Neal L., University Park
Hodson, Annesley E., III, Baltimore
Holloman, J. Edward, Catonsville
Hopkins, W. Wylie, Bel Air
Horn, Arthur W. M., Hyattsville
Hutson, Paul B., Cumberland
Joy, Bernard F., Washington, D. C.
Keagy, Lowell T., Washington, D. C.
Kelly, C. Markland, Jr., Baltimore
King, Robert P., Baltimore
Klein, Louis E., Baltimore
Krouse, William E., Bethesda
Kyttle, Stuart F., Washington, D. C.
Lafer, Harry N., Passaic, N. J.
Lautenberger, George F., Baltimore
Layton, William R., Hurlock
Lee, Robert S. W., New York, N. Y.
Luntz, John G., Govans
MacKenzie, Lawrence, Silver Spring
Mann, Stanley R., Norristown, Pa.
McAuliffe, Richard G., Great Neck, N. Y.
McCloskey, Paul D., Cumberland
Meacham, Richard H., Catonsville
Mendelson, Robert I., Baltimore
Miller, Cary H., Branchville
Miller, William T., Winchester, Indiana
Minion, Allen V., Newark, N. J.
Mishtowt, Basil I., Chevy Chase
Molofsky, Albert L., Baltimore
Montgomery, Robert J., Washington, D. C.
Moog, Robert L., Summit, N. J.
Moore, Samuel V., Washington, D. C.
Moran, Robert T., Chevy Chase
Morris, William VanN., Hyattsville
Moseley, Robert M., Beltsville
Mueller, J. Leo, Baltimore
Mulligan, Walter F., Jr., Berwyn
Murphy, Donald F., Mt. Washington
Myers, Harold E., College Park
Nylen, Edward W., W. Hartford, Conn.
Parker, Charles E., Washington, D. C.

Pendleton, George C., Washington, D. C.
Pfefferkorn, Samuel L., Jr., West Friendship
Pickett, Harry K., Jr., Washington, D. C.
Pratt, Page B., Washington, D. C.
Pulliam, James W., Washington, D. C.
Rausch, Charles A., Jr., Baltimore
Reese, Elmer L., Baltimore
Reside, Marjorie S., Silver Spring
Rimmer, Harry, University Park
Roach, William O., Baltimore
Rogers, John D., Richmond, Va.
Roth, Clayton F., Cumberland
Rumpf, Russell M., Beltsville
Samuelson, Morton S., Baltimore
Schaefer, Charles F. H., Hamilton
Schmitt, Edwin M., Chevy Chase
Schultz, Selma, Lynbrook, N. Y.
Seigel, Martin P., Washington, D. C.
Seippel, John H., Baltimore
Seitz, William N., Washington, D. C.
Seviour, Carolyn E., Silver Spring
Shaw, E. Leslie, Chevy Chase
Slesinger, Albert D., Baltimore
Smith, Francis A., North East
Smith, Harry L., Jr., Chevy Chase
Smith, Warrington G., Phoenix
Snyder, Peter F., Silver Spring
Spicer, Hiram H., III, Baltimore
Tate, John K., Middletown
Thurston, William B., III, Relay
Ulman, Bernard, Jr., Baltimore
Vaile, Charles L., Jr., Washington, D. C.
Vannais, Leon S., Leonia, N. J.
Vogel, Albert E., Hyattsville
Walker, Frederick B., Beltsville
Ward, George B., Jr., Washington, D. C.
White, Joseph H., Maplewood, N. J.
White, William P., Oxon Hill
Williams, Paul M., Washington, D. C.
Worthington, Leland G., Jr., Berwyn
Wrightson, Wilson T., Easton
Young, Elton F., Washington, D. C.

Freshman Class

Aldinger, George W., Dayton, Ohio
Baker, Jack A., Chevy Chase
Barker, Charles R., Washington, D. C.
Barnett, William M., Washington, D. C.
Bates, William C., New York, N. Y.
Bergman, Arthur J., Jr., Chevy Chase
Berman, Stanley, Annapolis
Berry, Harold P., Washington, D. C.
Bourne, Thomas E., Hyattsville
Bransdorf, Kenneth H., Washington, D. C.
Brock, Marjorie J., Baltimore
Brown, Francis W., Ashton
Campbell, Bruce S., Lutherville
Christmas, Walter E., Washington, D. C.
Christopher, William W., Newtonville, Mass.
Coffman, James R., Catonsville
Collings, Neil B., Bethesda
Conrad, Alison M., Annapolis
Cook, George A., Takoma Park
Crockett, James E., University Park
Crockett, Joseph McL., University Park
Crom, Theodore R., Jackson Heights, N. Y.
Crouch, Charles T., Church Hill
Cutler, Abraham B., Haddonfield, N. J.
Darroch, Dan M., Baltimore
Davis, Burton F., New Rochelle, N. Y.
Davis, Floyd E., Jr., Rockville
Degges, James E., Brentwood
Dobler, John J., Baltimore
Draper, William G., Silver Spring
Duke, Benedict D., Leonardtown
Dunbar, Paul M., Greenbelt
Dunnington, Donald W., Chevy Chase
Durkin, Charles A., Jr., Washington, D. C.
Edwards, Neal J., Silver Spring
Embrey, Chester T., Washington, D. C.
Evans, Robert P., Crisfield
Fisher, Eugene S., Baltimore
Fletcher, Theodore G., Jr., Preston
Fontaine, Guy E., Washington, D. C.
Forbes, Eleanor M., Aquasco
Frederick, John R., Baltimore
Frye, Ellis F., Baltimore
Fulton, William J., Roselle Park, N. J.
Gaines, Clemens W., Edgewood
Galliher, David, Washington, D. C.
Gay, Charles P., Jr., Washington, D. C.
Gilmore, John D., Washington, D. C.
Glasgow, Norman M., Hyattsville
Goldenzweig, William M., Washington, D. C.
Gordon, Harry R., Chevy Chase
Gorfine, Lewis W., Baltimore
Gossage, Howard S., Washington, D. C.
Green, Thornton F., Riverdale
Greenberg, David H., Baltimore
Gross, Benton H., Bel Air
Hammond, Robert B., Keedysville
Hare, Ray M., Chevy Chase
Hargreaves, Jack A., Randallstown
Harry, Joseph C., Pylesville
Heathcote, William C., Baltimore
Hepburn, John W., Brentwood
Herring, Paul L., Hyattsville
Hesse, Joseph, Washington, D. C.

Hicks, Fred C., Jr., Washington, D. C.
Higgins, William T., Hurlock
Holland, Sorin N., Salisbury
Howell, Walter R., Washington, D. C.
Jenkins, George M., Baltimore
Jenkins, Thomas C., Jr., Indian Head
Jewell, Alvin W., College Park
Jones, Fletcher H., Washington, D. C.
Jones, Leonard K., Baltimore
Katz, Sylvan L., Washington, D. C.
Keller, Robert S., Washington, D. C.
Kidd, Franklin F., Washington, D. C.
Kimbel, Milton, Washington, D. C.
Kinsel, James N., Washington, D. C.
Koehnlein, William F., Raspeburg
Krehnbrink, William H., Baltimore
Kreiter, Emory B., Washington, D. C.
Lanahan, Thomas J., Jr., Washington, D. C.
LaPorte, Frank B., Lanham
Lavinsky, Elaine L., Brooklyn, N. Y.
Levenson, William I., Baltimore
Lewis, Paul A., Baltimore
Little, Roy L., Riverdale
Logan, Alice C., Riverdale
Longanecker, Walter R., Branchville
Mandjuris, Andrew A., Riverdale
Mann, John W., Jr., Bethesda
McDonald, Mary L., Washington, D. C.
McKinney, Swift, Washington, D. C.
Meltz, Harry R., College Park
Mennen, Dorothy V., Washington, D. C.
Mericle, Harold I., Washington, D. C.
Meyer, Gratian J., Washington, D. C.
Meyer, William J., Washington, D. C.
Miller, John F., Baltimore
Miller, John P., Washington, D. C.
Moore, Warren H., Chevy Chase, D. C.
Morris, Daniel L., Jr., Washington, D. C.
Morrow, Mary E., Washington, D. C.
Moss, Seymour L., Boonsboro
Murphy, John J., Jr., Washington, D. C.
Newell, Donald E., Centreville
Oakes, Robert R., Brooklyn, N. Y.
Odell, Marshall D., Ellicott City
Orpwood, Wilmer T., Baltimore
Rabai, John F., Baltimore
Ray, Robert N., Fair Haven
Rigby, Elmer C., Baltimore
Ritzel, James A., Westover
Roberson, Ann K., Rising Sun
Robinowitz, Shirley B., Washington, D. C.
Robinson, Edward C., Jr., Bethesda
Rosenfield, Norman P., So. Norwalk, Conn.
Rothenhoefer, Robert S., Frederick
Ruppersberger, Charles A., Jr., Baltimore
Sattler, Eugene A., Monkton
Schendel, Walter G., Pittsburgh, Pa.
Schwab, James E., Washington, D. C.
Sewell, Reamer E., Cumberland
Shea, John H., Washington, D. C.
Shields, James C., Jr., Abington, Pa.
Sinclair, Norman S., Washington, D. C.
Smith, Herbert D., Riverdale
Sneeringer, James G., Gettysburg, Pa.
Spalding, E. Allan, Washington, D. C.
Sperling, Alvin B., Washington, D. C.
Steinberg, Edward H., College Park
Sullivan, William S., Jr., Baltimore
Tepper, Lawrence, Washington, D. C.
Triplett, Daniel C., Washington, D. C.
Tufft, Robert A., Hurlock
Twigg, Carl C., Westminster
Vannais, Phil C., Leonia, N. J.
Vincent, Reginald C., Eatontown, N. J.
Walker, Jonathan T., Mitchellville
Wallop, John D., III, Washington, D. C.
Warfield, Allen, Jr., Baltimore
Wells, John D., Washington, D. C.
Whipple, Daniel S., Catonsville
Winn, Percy E., Silver Spring
Wood, James M., Coltons Point
Wurzbacher, Frederick E., Jr., Baltimore

Part Time

Carey, Helen F. (Mrs.), Greenbelt
Lemmermann, Henry J., University Park
Miller, Joshua I., Berwyn

Unclassified

Baker, Archie K., Keedysville
Barry, Caroline L., Washington, D. C.
Bunevich, Milton, Washington, D. C.
Kennedy, Henry A., Mason City, Iowa
Marcus, Clarence, Indiana, Pa.
Smith, Hateva V., Greensboro

SCHOOL OF DENTISTRY

Senior Class

Belinkoff, Sidney A., Weehawken, N. J.
Bonham, John T., Charleston, W. Va.
Bookstaver, Julian B., Teaneck, N. J.
Czaplinski, Theodore F., Brooklyn, N. Y.
Dabrowski, Benjamin A., Baltimore
Diamond, Ben, Roanoke, Va.
Goldhaber, Samuel, Flushing, N. Y.
Kasawich, Julius I., Whitestone, N. Y.
Litchman, Burton, Edgewood, R. I.
Lowander, George A., Jr., Queens Village, N. Y.
Pessagno, Eugene L., Jr., Baltimore
Piccolo, James A., New Haven, Conn.
Randman, Bernard, Whitestone, N. Y.
Westcott, Horace L., New London, Conn.

Junior Class

Aurbach, Frederick, Idabel, Okla.
Baker, Robert N., Kings Mountain, N. C.
Beaven, Sterrett P., Baltimore
Berman, Daniel E., Baltimore
Betts, Robert L., Morris Plains, N. J.
Birschtein, Benjamin, Atlantic City, N. J.
Bohne, Edmund L., Bergenfield, N. J.
Bressman, Edward, Newark, N. J.
Briskin, Melvin R., Springfield, Mass.
Brotman, Alfred, Baltimore
Burch, Joseph P., Clifton, N. J.
Caldwell, Gilbert L., Baltimore
Callaway, John S., Beckley, W. Va.
Capone, Nicholas J., Baltimore
Castelle, Paul B., Baltimore
Chernow, Abraham, Brooklyn, N. Y.
Chmar, Phillip L., Rockville
Collins, William M., Bellows Falls, Vt.
Corbitt, Donald C., Waverly, W. Va.
Cullen, Jerome S., Baltimore
Dembo, Joseph C., Norwich, Conn.
DePasquale, Frank L., East Northport, N. Y.
DeScherer, Morton, Englewood, N. J.
Dubansky, Paul S., Baltimore
Easton, James F., Romney, W. Va.
Farrell, Daniel L., Norwich, Conn.
Frey, Donald T., Catonsville
Friedmann, Michael, Whitestone, N. Y.
Golden, Maxwell S., South River, N. J.
Gudwin, Abraham, New York, N. Y.
Haggerty, Warren D., Jr., Ridgewood, N. J.
Hawkins, Virgil R., Jr., Union, S. C.
Heller, Stanley, New York, N. Y.
Hewitt, Earl C., Baltimore
Hoffman, Barnet, Newark, N. J.
Hyman, Harold, New York, N. Y.
Hymanson, Nathan W., Richmond Hill, N. Y.
Kapiloff, Bernard, New York, N. Y.
Kapiloff, Leonard, New York, N. Y.
Karow, Seymour M., Ellenville, N. Y.
Kellar, Sidney, Ellenville, N. Y.
Klingelhofer, Herbert E., Baltimore
Koenig, Leonard, New York, N. Y.
Kornreich, Kenneth D., Waterbury, Conn.
Lauro, Mario A., Waterbury, Conn.
Lawrence, Ronald, Elk Mills
Levy, Benjamin, Brooklyn, N. Y.
Marano, Frank A., Newark, N. J.
Matisi, Anthony F., Endicott, N. Y.
McClees, Joseph G., Baltimore
McDaniel, Edward P., Jr., Jarrettsville
Mishkin, Edward A., New York, N. Y.
Ollman, Abraham, New York, N. Y.
Parker, Malcolm M., Freehold, N. J.
Policow, Myron A., Roxbury, Mass.
Reusch, George, Cranford, N. J.
Rosenberg, Edward, Jamaica, N. Y.
Rudo, Frederick B., Raspeburg
Santeramo, John R., Brooklyn, N. Y.
Schiller, LeRoy E., Newark, N. J.
Schultheis, Carl H., Baltimore
Singer, Max, Bridgeport, Conn.
Sloan, Harry, Brooklyn, N. Y.
Smith, Bernard, Hagerstown
Smith, Joseph H., Hancock
Spina, Russell, Jamaica, N. Y.
Storch, Murray, Passaic, N. J.
Taub, Charles, Newark, N. J.
Toffic, John W., Bergenfield, N. J.
Tolley, Leonard J., Brooklyn Park
Vitolo, Erminio R., Brooklyn, N. Y.
Weinger, Irving I., Brooklyn, N. Y.
Zeger, Jack I., Port Jervis, N. Y.
Zuskin, Raynard F., Baltimore

Sophomore Class

Aldridge, William A., Baltimore
Amatrudo, Andrew J., New Haven, Conn.
Askins, Clifford F., New York, N. Y.
Berman, Alexander N., Spring Valley, N. Y.
Biega, Stanley G., Wallingford, Conn.

Bixby, Daniel, Jamestown, N. Y.
Chiqués, Elsa L., Caguas, Puerto Rico
Coccaro, Peter J., Jersey City, N. J.
Cohen, Sylvan P., Baltimore
Corder, Woodrow W., Clarksburg, W. Va.
Coroso, Joseph T., Hartford, Conn.
Criss, James T., Fairmont, W. Va.
Deneroff, Paul, New York, N. Y.
Edwards, Paul M., Dundalk
Eilenberg, Morris, Brooklyn, N. Y.
Emburgia, Joseph A., Vineland, N. J.
Entelis, Stanley, New York, N. Y.
Everson, Stewart, Washington, D. C.
Gibel, Charles, Brooklyn, N. Y.
Goldstein, Richard H., Huntington, W. Va.
Gratz, Ezra B. A., Brooklyn, N. Y.
Helitzer, Bernard, Glens Falls, N. Y.
Herman, Alan H., East Orange, N. J.
Herschaft, Arthur, New York, N. Y.
Hyman, Seymour G., Vineland, N. J.
Katz, Isador G., Ellenville, N. Y.
King, Samuel L., Mount Nebo, W. Va.
Kolman, Irvin O., Trenton, N. J.
Koppelman, Seymour, New York, N. Y.
Lasch, Henry R., Jr., New Britain, Conn.
Lazauskas, Algert P., Baltimore
Lichtenstein, Lawrence, New York, N. Y.
Martinelli, Ricardo, Panama City, Panama
Mintz, Victor W., Newark, N. J.
Munoz, Jorge E., Salinas, Puerto Rico
Murzin, Louis L., Harrisburg, Pa.
Nathanson, Norman R., Millis, Mass.
Nussbaum, Murray, New York, N. Y.
Ouellette, Raymond T., Lawrence, Mass.
Pecoraro, Arthur A., New York, N. Y.
Powell, Julius B., Clinton, N. C.
Rakosky, David S., New London, Conn.
Ralph, Chester B., Keyport, N. J.
Ramírez, Mario F., San German, Puerto Rico
Reynolds, Joseph R., Providence, R. I.
Rogoff, Sidney, Nutley, N. J.
Salutsky, David M., Syracuse, N. Y.
Savage, Alvin H., Baltimore
Schwartz, Harold, Belle Harbor, N. Y.
Steele, Glenn D., Dagsboro, Del.
Stoopack, Chester J., Brooklyn, N. Y.
Tighe, Joseph M., Raspeburg
Toomey, Lewis C., Elkridge
Toubman, Rosalind I., Hartford, Conn.
Towson, Donald H., Dundalk
Waltman, Edwin B., Steubenville, O.
Watsky, Howard F., Mount Vernon, N. Y.
Watson, Earle H., Henderson, N. C.
Weise, Hans E., Ridgewood, N. J.
Weiss, Howard G., Glendale, N. Y.
Wieland, John T., Baltimore
Williams, Roger E., Norfolk, Va.
Williamson, Riley S., Baltimore

Freshman Class

Binder, Herbert, Brooklyn, N. Y.
Birghenthal, Murray, Flushing, N. Y.
Blevins, John P., Centreville
Book, David R., Baltimore
Bryce, Frank J., Florence, S. C.
Bytovetzski, David L., Providence, R. I.
Carey, Asher B., Frankford, Del.
Carter, William P., Jr., Nutley, N. J.
Carvalho, John C., Fall River, Mass.
Cerny, Henry F., Baltimore
Check, Oscar, Brooklyn, N. Y.
Chereskin, Frank M., Longmeadow, Mass.
Cierler, Irving J., Baltimore
Cirrito, William J., Brooklyn, N. Y.
Colaluca, Anthony C., Providence, R. I.
Cook, George P., Ticonderoga, N. Y.
Cooper, Bertram, Baltimore
Cooper, Harry W., Baltimore
Czachorowski, Leo J., Jr., Jersey City, N. J.
DeYoung, George M., Paterson, N. J.
DiGristine, Charles L., Baltimore
Ditrolio, James V., Kearney, N. J.
DuBoff, Mortimer, West Hartford, Conn.
Dulberg, Sidney, Brooklyn, N. Y.
Eff, Leo, Hartford, Conn.
Feigenbaum, Irving, New York, N. Y.
Feldman, Milton J., South Fallsburg, N. Y.
Fishman, Leo, Flushing, N. Y.
Fox, Joseph, Atlantic City, N. J.
Foxman, Paul B., Newburgh, N. Y.
Gardner, Mont M., Fairview, W. Va.
Goodman, Harold H., Manchester, N. H.
Greene, Willard T., Baltimore
Greifer, Albert B., New York, N. Y.
Hauss, Howard J., New London, Conn.
Heller, Stanley H., Brooklyn, N. Y.
Herman, Paul A., Hartford, Conn.
Hirsch, Albert, Frederick
Hyman, Harold, Meriden, Conn.
Jailer, Robert W., Maywood, N. J.
Kaufman, Morton, New York, N. Y.
Klein, Joseph, New York, N. Y.
Klinger, Seymour S., New York, N. Y.
Koggan, David, Paterson, N. J.
Kraman, Hyman, New York, N. Y.
Krieger, Leon I., Baltimore
Krugman, Leonard, Newark, N. J.
Kushner, Jack, New York, N. Y.
Langel, Lester, New York, N. Y.

Leatherbury, George P., Towson
Lee, William G., Willow Springs, N. C.
Leibowitz, Bernard B., Brooklyn, N. Y.
Lepine, Arthur J., Holyoke, Mass.
Levine, Lawrence B., South Fallsburg, N. Y.
Levy, Herbert S., Baltimore
Lewis, Edward, Camden, N. J.
Libby, Lewis S., Jr., Milford, Maine
Liloia, Michael P., Nutley, N. J.
Martin, William R., Baltimore
Martino, Alfred A., Hartford, Conn.
Mass, Calvin N., Hartford, Conn.
Masserman, Joseph, Brooklyn, N. Y.
McAtee, Kenneth S., Berryville, Va.
Mehring, Richard S., Taneytown
Menius, John W., Jr., Monroe, N. C.
Nussbaum, Philip, New York, N. Y.
O'Meara, John O., Torrington, Conn.
Onesti, Vincent R., Brooklyn, N. Y.
Pedinoff, Philip R., Newark, N. J.
Pfeffer, Harry G., Brooklyn, N. Y.
Pollak, Robert M., New York, N. Y.
Pustilnik, Jack, Maplewood, N. J.
Reilly, James T., Central Aguirre, Puerto Rico
Robinson, Maurice C., Newburgh, N. Y.
Rosenberg, Morris K., Brooklyn, N. Y.
Rosenfeld, Mortimer, New York, N. Y.
Roulier, Albert P., Laconia, N. H.
Rubin, Norman H., Brooklyn, N. Y.
Rubin, William, Brooklyn, N. Y.
Russell, Donald G., Basking Ridge, N. J.
Safro, Abraham I., West New York, N. J.
Scanlon, John H., Westerly, R. I.
Schechter, Alexander, Brooklyn, N. Y.
Scheinberg, Emil M., New Brighton, N. Y.
Schwartz, Norton B., Spring Valley, N. Y.
Seides, Justin M., New York, N. Y.
Shane, Sylvan M. E., Baltimore
Shilkret, Robert T., New York, N. Y.
Shmuner, Daniel, Baltimore
Simpson, Thomas R., Dillon, S. C.
Skowronek, Marvin, Somerville, N. J.
Smith, Russell P., Jr., Cambridge
Spanier, Eugene, New York, N. Y.
Spoon, Riley E., Winston-Salem, N. C.
Stern, Martin, Sacramento, Calif.
Sucoll, Sidney, Hartford, Conn.
Tongue, Raymond K., Jr., Baltimore
Tunstall, William M., Jr., Lovingston, Va.
Walsh, Albert J., Rio Piedras, Puerto Rico
Watson, Ben M., Rio de Janeiro, Brazil, South America
Wilkinson, Milton S., N. Arlington, N. J.
Yalovitz, Marvin S., Anniston, Ala.
Zahn, Julius, Brooklyn, N. Y.
Zimmerman, John B., Schaefferstown, Pa.

Second Year Predental Class

Aserinsky, Eugene, New York, N. Y.
Bernert, Robert H., West Hartford, Conn.
Bruckner, Robert J., Union City, N. J.
Capone, Celeste E., Baltimore
Carliner, Louis E., Baltimore
Davitz, Leonard, Baltimore
Ebeling, W. Carl, III, Baltimore
Feit, Sylvan O., Baltimore
Haimovitz, Herman, Baltimore
Hollander, Morton H., Baltimore
Karesh, Stanley H., Charleston, S. C.
Kirshen, Sanford W., New York, N. Y.
Kramer, Donald, Baltimore
Krasner, Herbert A., Newark, N. J.
Lavine, Bernard S., Trenton, N. J.
Leiphart, Mahlon P., York, Pa.
Machen, August R., Baltimore
Richman, George Y., New Britain, Conn.
Smith, Robert H., Harrington, Del.
Steinberg, Leon, Baltimore
Stillwell, Walter B., Jr., Baltimore
Trommer, Felix T., Norwich, Conn.
Vine, Leon, Baltimore
Whaley, Wilson M., Jr., Baltimore
Witman, Harold I., Newark, N. J.
Zeender, Philip J., New Haven, Conn.

First Year Predental Class

Bosworth, John F., Bristol, Vt.
Bove, Charles J., Jr., Eastport
Byars, James R., Baltimore
Clement, Hugh M., Baltimore
Conner, Eugene H., Baltimore
Danker, Bertram, Baltimore
Donohue, James C., Baltimore
Dosh, David H., Baltimore
Fales, Donald G., Baltimore
Feldman, Henry E., Baltimore
Flitton, Herbert H., Baltimore
Gare, Louis I., Newark, N. J.
Gaver, Oren H., Linthicum Heights
Goldberg, Harold, Ridgewood, N. J.
Goldman, Edgar H., Baltimore
Gordon, Bernard, Phoenicia, N. Y.
Hennesey, Charles W., Jersey City, N. J.
Hoffman, Edward J., Baltimore
Levickas, Herbert J., Baltimore
Long, Henry L., Jr., Ellicott City
O'Hearn, James W., Pittsfield, Mass.
Pfeifer, William E., Halethorpe

Pitruzzella, Joseph A., Baltimore
Quillin, George O., Laurel, Del.
Radler, Herbert A., Newark, N. J.
Smith, Norval F., Baltimore
Walker, Owen, Catonsville
Zemel, Hyman W., Baltimore

Special Student

Gratzon, Peter, North Catasauqua, Pa.

COLLEGE OF EDUCATION

Senior Class

Aitcheson, Genevieve, Laurel
Albarano, Ralph J., Lilly, Pa.
Ames, Ann C., Westmoreland Hills
Baitz, Mildred, Washington, D. C.
Barnes, Richard K., Jr., Sykesville
Bollinger, Gladys G. (Mrs.), College Park
Bono, Ann M., Washington, D. C.
Bono, Vivian E., Washington, D. C.
Brenner, Helene T., Baltimore
Burroughs, Eva E., Mechanicsville
Chronister, Mason F., Baltimore
Cronin, Frank H., Joppa
Dietrich, Clayton A., Baltimore
Dorsey, Nathan G., Jr., Mt. Airy
Duncan, Laura R., District Heights
Dunn, Katherine C., Silver Spring
Evans, Halbert K., Bladensburg
Ferrell, Sara F., Matoaka, W. Va.
Fout, Murray H., Frederick
Fricke, Annamarie H., Baltimore
Gisriel, Austin E., Elkridge
Green, Mildred E., Lonaconing
Griffith, Ann M., Rockville
Groves, Helen V., Cumberland
Hackett, Eunice M. L., Secretary
Hart, Richard K., Hagerstown
Hottel, Betty L., College Park
Jackson, Lorraine V., College Park
Jarboe, Anne E., Leonardtown
Jones, Rose I., College Park
Kehoe, James H., Bel Air
Keys, Virginia A., Laurel
King, Judith A., Washington, D. C.
Knepley, George W., College Park
Kornmann, Lucille V., Baltimore
Kreuzburg, Harvey W., Silver Spring
Leites, Israel, Baltimore
Longest, Katherine A., Baltimore
Meade, James G., Port Deposit
Nordwall, Alice E., College Park
Owens, Anna B. (Mrs.), McDonogh
Plumer, Gertrude E., Huntingtown
Pollack, Ethel, Baltimore
Price, Frances, Chattaroy, W. Va.
Reynolds, Margaret S., Relay
Rinehart, Mary S., Relay
Roesler, Herbert S., Bayard, Va.
Short, Katharine E., Calvert Hills
Smith, Virginia E., Mt. Airy
Stoddart, Adam T., Baltimore
Sullivan, Mary S., Frostburg
Teal, Lois, Hyattsville
Weidinger, Charles W., Baltimore
Zurhorst, Mary O., Silver Spring

Junior Class

Adams, Ellen C., Aberdeen
Applegarth, Vivian E., Honga
Bell, Judson H., Aberdeen
Bengoechea, Adam, Chevy Chase
Bierly, Jack S., Sabillasville
Bodine, Mildred V., Silver Spring
Bolden, Mary V., Oakland
Boose, Barbara E., Washington, D. C.
Boyda, John J., Iselin, Pa.
Broome, Ethel M., Washington, D. C.
Burkom, Philip, Baltimore
Butler, Isabel R., Edmonston
Cline, Carl A., Monrovia
Corcoran, Martha A., Washington, D. C.
Cumming, William K., Port Deposit
Farlow, Hester A., Salisbury
Gienger, George H., Brentwood
Gilleland, Catherine E., Chevy Chase
Gray, Carolyn B., Poolesville
Haase, Thomas N., Baltimore
Hall, Marguerite G., Baltimore
Hurley, Robert F., Hyattsville
Hyatt, Hilda M., Damascus
Kalbaugh, Helen B., Luke
Lanahan, Reita M., Washington, D. C.
Lane, John E., Washington, D. C.
Lewis, Francis A., Sykesville
Lucas, Frances N., Berwyn
Maisel, Frederick C., Catonsville
Maynard, Eurith L., Baltimore
McClure, Charles J. R., Baltimore
McFadden, Janet M., Mt. Rainier
McGuigan, Hilda C., Halethorpe
Mohlé, Robert L., Berwyn
Mondorff, Pershing L., Emmitsburg
Morse, Suzanne F., Washington, D. C.

Murphy, Joseph M., Carney's Point, N. J.
Naughten, Edward T., Washington, D. C.
Nordwall, Frances L., College Park
Osso, Philomena, Annapolis
Owings, Jane C., Riverdale
Powers, Lillian, Jersey City, N. J.
Ramer, Jean E., Bethesda
Reese, Elizabeth J., Washington, D. C.
Reynolds, Hope, Rising Sun
Ross, Betsy, Takoma Park
Ryon, Mary J., Waldorf
Sargeant, Lida E., Silver Spring
Schwartz, Rosalind, New York, N. Y.
Shaffer, Richard W., Johnstown, Pa.
Stubbs, Mildred V., Mt. Rainier
Tapper, Herman A., Baltimore
Trout, Maxine E., Frederick
Vaught, Jeannette, Hyattsville
Zimmerman, Margaret C., Frederick

Sophomore Class

Adkins, Isobel, Parsonsburg
Alperstein, Isadore H., Baltimore
Arnold, William D., Baltimore
Beard, Melva F., Annapolis Junction
Bertrand, Lorraine K., Baltimore
Betts, Allen W., Chevy Chase
Bjorge, Margaret, New London, Conn.
Bowling, Martha E., Hughesville
Bright, Elmer F., Baltimore
Burton, Jean E., Cheverly
Carnin, Helen J., Baltimore
Catling, Ruth E., Catonsville
Chaires, Helen V., Queen Anne
Cissel, Jean L., Sandy Spring
Coffman, Maidee E., Washington, D. C.
Cohen, Elias, Baltimore
Conner, Shirley N., Washington, D. C.
Crane, Helen L., College Heights
Culver, Burton E., Hyattsville
Deitz, Alice E., Baltimore
Dubin, Charles T., Baltimore
Duvall, Hiltrude A., Savage
Duvall, Mearle D., Baltimore
Fields, Thomas McC., Hyattsville
Foerster, Dorothy H., Washington, D. C.
Fraley, Harry H., Derwood
Garlitz, Dorothy M., Cumberland
Giles, Nathan L., Washington, D. C.
Gordon, Ian, Arbutus
Griffin, Helen C., Baltimore
Hall, Betty D., Washington, D. C.
Hamilton, Mildred E., Oakland
Handler, Esther, Kingston, N. Y.
Harman, Jessie M., Hyattsville
Heath, Phillip C., College Park
Holt, Bette E., Takoma Park
Huff, Catherine P., Chevy Chase
Jacobs, Sylvan W., Red Lion, Pa.
Jost, Marjorie E., Bethesda
Jullien, Elizabeth J., Chevy Chase
Kahl, Mary C., Hagerstown
Kane, Mary E., Silver Spring
Kardash, John, Baltimore
Kerchner, Janet L., Walkersville
Kibler, Margaret J., Hyattsville
Kinlock, William H., III, Bellevue
Knauer, Helena M. A., Berwyn
Kreider, Geraldine, Riverdale
Kuehle, Marie P., Baltimore
Lamm, Vivian C., Hyattsville
Latimer, Mary B., Silver Spring
Lennon, Mary R., Baltimore
Lumsden, Milton G., Baltimore
Luskin, Joseph, Baltimore
Main, Robert L., Seat Pleasant
McGill, Caroline, Thurmont
McLuckie, Virginia L., Cumberland
McNeil, John P., Baltimore
Meiser, Margaret R., Baltimore
Melvin, Robert H., Washington, D. C.
Mercer, M. Virginia, Baltimore
Mermelstein, Arnold, Baltimore
Mullin, Beryl H., Aberdeen
Murray, Norma L., Princess Anne
Oberle, William F., Jr., Dundalk
Parlett, Mary D., Ellicott City
Pfeiffer, H. Shirley, Teaneck, N. J.
Powell, Mary V., Hagerstown
Purnell, Jane L., Laurel, Del.
Riley, William T., Baltimore
Rockstroh, Henry J., Ellicott City
Sansone, Marie J., Baltimore
Saperstein, Paul, Baltimore
Savitz, Melvin M., Baltimore
Schmidt, Wilhelmina V., Seat Pleasant
Schoenhaar, William H., Baltimore
Schroeder, Leonard T., North Linthicum
Scott, Janet L., Brentwood
Sexton, M. Jordan, Baltimore
Shanahan, Kathleen E., Riverdale
Shea, Katherine, Holyoke, Mass.
Shipley, Florence L., Cumberland
Showacre, Harold G., Baltimore
Smith, Robert H., Woodlynne, N. J.
Stealey, Jean E., Baltimore
Stiles, Catherine E., Rockville
Stubbs, Charlotte M., Mt. Rainier
Surosky, Ruth F., Baltimore
Taylor, Morton F., Perryville
Thompson, Norma L., Fenwick
Urquhart, Ann M., Riverdale
Valle, Michalena M., Baltimore

Wharton, James H., Baltimore
White, Charlotte B., Dickerson
White, Florence J., Poolesville
Wilkins, Laura A., Pocomoke City
Williams, Aileen M., Hyattsville
Wolf, Ann O., Baltimore
Wolfinger, Margaret E., Hagerstown
Woodburn, Dale B., Mt. Rainier

Freshman Class

Ashby, Loretta J., Crellin
Baker, Halford H., Winchester, Va.
Beall, G. Marie, Damascus
Benjamin, Harold H., Hyattsville
Bradburn, Eleanor M., Upper Marlboro
Bramble, Harrison L., Cambridge
Brelsford, Richard E., Berwyn
Brockman, Muriel F., Riverdale
Brown, Edwin L., Lovettsville, Va.
Burnett, Pelham R., Baltimore
Chacos, Louis G., Washington, D. C.
Conrad, Luther B., Hollidaysburg, Pa.
Coursey, Carolyn M., Centreville
Davis, Frances M., Glenside, Pa.
Decker, Dorothy J., Washington, D. C.
DePrimo, Joseph G., Dunmore, Pa.
Devlin, Thomas H., Baltimore
Dunn, Mary, Hyattsville
Durst, Laura R., Lonaconing
Eckman, William D., Canton, Pa.
Errera, Irven, Washington, D. C.
Evans, Ruth V., Washington, D. C.
Fenton, Elizabeth L., Washington, D. C.
Ferree, Dolores J., Frostburg
Ferrell, Mary J., Richmond, Va.
Fradin, Harry H., Baltimore
Frye, William M., Mt. Rainier
Gannon, Joseph A., Hyattsville
Goldman, Allan P., Baltimore
Gottlieb, Gloria I., Oceanside, N. Y.
Greenberg, Beatrice, Baltimore
Greer, Richard S., Baltimore
Grelecki, Ramon, Baltimore
Gunther, Herbert J., Baltimore
Hamacher, John S., Washington, D. C.
Harrison, Betty Lou, Hyattsville
Henderson, James M., Washington, D. C.
Hess, Mary M. E., Point Pleasant, N. J.
House, Norris M., Washington, D. C.
Humphreys, Margaret L., Baltimore
Jones, Marjorie K., Wheeling, W. Va.
Kihn, Stanley J., Baltimore
Krafft, Catharine E., Washington, D. C.
Kramer, Bernard I. H., Baltimore
Kuster, Walter B., Blossburg, Pa.
Loveless, Ernest A., Clinton
Maisel, Robert L., Catonsville
Markowitz, Carroll, Baltimore
Masincupp, Gordon, Chevy Chase
Mathieson, Elwood F., Washington, D. C.
McGlaughlin, Charles C., Highfield
Munson, Louise, Southbury, Conn.
Murray, Kenneth M., Lydia
Novick, Corrine C., Baltimore
O'Neil, Warren K., Alexandria, Va.
Ott, Willa L., Mt. Rainier
Passen, Alex, Baltimore
Prettyman, Virginia A., Tilghman
Rawlings, Emma W., Westwood
Reibetanz, Jeanette M., Baltimore
Reynolds, Charles J., Baltimore
Richards, Patricia E., Takoma Park
Romm, Pearl J., Takoma Park
Sansone, John A., Baltimore
Seward, Mark H., Baltimore
Shaw, Winthrop S., Chevy Chase
Sheer, Daniel E., Baltimore
Shockey, Donald J., Waynesboro, Pa.
Smink, Betty W., Aberdeen
Sterling, Samuel C., Baltimore
Stevenson, Lottie E., Takoma Park
Stratmann, Elizabeth L., Dundalk
Taylor, Mary L., Baltimore
Thayer, Mary A., High Point, N. C.
Thomas, Jean C., Washington, D. C.
Thompson, Frances A., College Park
Townsend, James G., Frostburg
Trice, Paul C., Hurlock
Umali, Louise-Marie, Hyatsville
Wagner, Barbara J., Riverdale
Wilmer, Cynthia Q., Popes Creek
Zepp, Ethel G., Westminster

Part Time

Alder, Guy D., Greenbelt
Angel, Ralph L., Dundalk
Bargas, Joseph E., Greenbelt
Becraft, Mabel V., Washington Grove
Bedsworth. Margaret C. (Mrs.), Washington, D. C.
Benbow, Gene T., Clinton
Bennett, Frances, Annapolis
Bentley, George E., Washington, D. C.
Biret, Elsie, Washington, D. C.
Blackmore, Esther M. (Mrs.), College Park
Blanchard, William St. J., Jr., Greenbelt
Blentlinger, Charles L., Frederick
Blentlinger, Nellie E., Frederick

Blundon, Earl A., Silver Spring
Bowie, Blanche L., La Plata
Bowling, Ellen H., Upper Marlboro
Bowlus, Sara E., Jefferson
Bowman, Emma M., Berwyn
Brice, Eleanor V., Annapolis
Brookbank, Annie V., Charlotte Hall
Brown, Mary W. (Mrs.), Greenbelt
Bryant, Slater W., Jr., Glen Burnie
Burgess, Maurine D. (Mrs.), Washington, D. C.
Burroughs, Henryetta B. (Mrs.), Mechanicsville
Cantwell, Hammond D., Annapolis
Chatham, Elizabeth E., Salisbury
Chew, Virginia, Annapolis
Childs, Minnie, Annapolis
Clark, Orpha A., Frostburg
Claytor, Margaret A., Riverdale
Copes, Grace R., Silver Spring
Cross, Janie A., Brandywine
Cullen, Emily M., Edgewater
Culver, Lynn J., Greenbelt
Cunningham, Hilda S. (Mrs.), Washington, D. C.
Curley, Kathryn L. (Mrs.), Washington, D. C.
Dawson, Helen M., Edgewater
Dematatis, Ernest E., Greenbelt
DeSalvo, Marks X., Greenbelt
Dickey, Mabel S., Indian Head
Dillon, Mary C. (Mrs.), Washington, D. C.
Dodd, Ocie E., Chevy Chase, D. C.
Dominek, Mary R., Washington, D. C.
Dowden, Elisabeth E., Washington, D. C.
Dyson, Edna M., Charlotte Hall
Earle, Mary I., Washington, D. C.
Ehrmantraut, Doris W., Washington, D. C.
Elliott, Marcia A., Annapolis
Emmerich, Sophie N., West River
Erickson, Janet A., Annapolis
Evans, William B., Jr., Ewell
Faber, Anna P. (Mrs.), College Heights
Fleming, Amy M. (Mrs.), Washington, D. C.
Folkman, Albert J., Greenbelt
Forsyth, Augusta McC. (Mrs.), Washington, D. C.
Fowler, Lavinia L. (Mrs.), Annapolis
Freeman, L. Louise, Frederick
Frothingham, James R., Sr., Hyattsville
Garner, Adelaide G. (Mrs.), Spring Hill
Gaver, Mabel B. (Mrs.), Linthicum Heights
Gibson, H. Madeline, Glen Burnie
Gibson, Rachel F., Glen Burnie
Giles, Martha R., Annapolis
Goodhand, Elizabeth A., Upper Marlboro
Goodpasture, Esther M., Washington, D. C.
Gough, Katharine L. (Mrs.), Laurel
Gray, Jane E., Port Tobacco
Green, Helen F., College Park
Grove, Edith M., Washington, D. C.
Gue, Ruth S. (Mrs.), Rockville
Hagenbuch, Ola K. (Mrs.), Hyattsville
Harbold, Charlotte R. (Mrs.), Annapolis
Hardesty, Leila V., Port Republic
Harrington, Irene N., Annapolis
Harris, Elizabeth M. (Mrs.), College Park
Haverty, Bernadine H. (Mrs.), Washington, D. C.
Hayden, Agnes, Popes Creek
Healy, Roberta F., Annapolis
Hearne, Ethel G. (Mrs.), La Plata
Henault, Gladys M. (Mrs.), Upper Marlboro
Henderson, William D., Mercer, W. Va.
Hennick, Donald C., College Park
Holmes, Miriam McD. (Mrs.), College Park
Holt, Nadine R. (Mrs.), Washington, D. C.
Ivins, May E., Lansdowne
Jameson, Anna B. (Mrs.), Rock Point
Johnson, Lucille E., Johnson City, Tenn.
Jones, Leonore G. (Mrs.), Faulkner
Kaufman, Gee L. (Mrs.), Washington, D. C.
Kenney, Katherine J., Frostburg
King, Olive E. (Mrs.), Clinton
King, Willamy S., Washington, D. C.
Kingdon, Mary R., Rockville
Knoblauch, Juliet J. (Mrs.), White Hall
Knotts, Dorothy E., Annapolis
Kyle, May T. (Mrs.), Washington, D. C.
Lederhos, Virginia L., Arnold
Linthicum, Eleanor E., Washington, D. C.
Long, Hannah E., Selbyville, Del.
Luckenbach, Everett A., Washington, D. C.
Magaha, Dora M., Frederick
Mangum, Susie A., Washington, D. C.
Margell, Lawrence C., Greenbelt
Marshall, Alma E. (Mrs.), Washington, D. C.
Martin, Sister Helen M., Washington, D. C.
Martin, Rae G. (Mrs.), Hughesville.
Matthews, Abigail G. (Mrs.), La Plata
Maw, Harold L., Greenbelt
McCall, Mildred L. (Mrs.), Washington, D. C.
McGuire, Margaret F., Lonaconing
McKeever, Antoinette D. (Mrs.), Silver Spring
McNeely, John H., Jr., Washington, D. C.
Michael, Edna M., Frederick
Miller, Dorothy A. Hyattsville
Mills, Christene (Mrs.), Washington, D. C.
Miner, Ernest H., Greenbelt
Miner, Hazel T. (Mrs.), Greenbelt
Mitchell, Alfred G., Baltimore
Mitchell, Nellie, Cambridge

Morris, Alta M., Normal, Ill.
Mudd, Anna L., Berwyn
Mudd, Dorothy, Bryantown
Mullendore, Louise C. (Mrs.), Washington, D. C.
Mumford, Addie M. (Mrs.), Hyattsville
Murphy, Joseph L., Greenbelt
Myers, Wilma C., Hyattsville
Nagle, Elmer S., Greenbelt
Needy, Glendora E., Boonsboro
Newman, Jeanette R. (Mrs.), Washington, D. C.
Nielsen, Gladys G. (Mrs.), Greenbelt
Norris, George W., Annapolis
O'Connor, Mary C., Roanoke, Va.
Owens, Doris E. C., Hanover
Parker, Mabel H. (Mrs.), Glen Burnie
Parrish, Marie M. (Mrs.), Upper Marlboro
Phillips, Esther V., Silver Spring
Plowden, Edna L. W. (Mrs.), Newport
Powell, Alice, Berwyn
Price, L. Irene, Frederick
Proctor, Irvin M., Greenbelt
Pumphrey, Elizabeth E. (Mrs.), Upper Marlboro
Riggin, Albia E., Princess Anne
Schaff, Boyd F., Greenbelt
Schoonmaker, Katherine, La Plata
Sheaffer, George E., Jr., Greenbelt
Sims, Olivia K. (Mrs.), Rockville
Smoot, Mildred D. (Mrs.), Kensington
Somers, Milton M., La Plata
Soper, Jessie G. (Mrs.), Piscataway
Sothoron, Julia H., Charlotte Hall
Souder, Letty H., Gaithersburg
Speicher, Nelle I., Accident
Stack, Margaret T. S. (Mrs.), Silver Spring
Stainback, Little B., Jr., Greenbelt
Staley, Ruth H. (Mrs.), Frederick
Starr, Margaret E., Hyattsville
Swann, Alice O., Dentsville
Tarleton, Laura B. (Mrs.), Annapolis
Taylor, L. Raymond, Greenbelt
Testerman, Lida M., Princess Anne
Teunis, Audrey S. (Mrs.), Upper Marlboro
Todd, Hilda M., Crisfield
Tretter, George, Greenbelt
Turner, Edward C., La Plata
Turner, Naomi E., Malcolm
Twardowicz, Albin H., Baltimore
Updegraff, Edward R., Berwyn
Vaughan, Eleanor J. (Mrs.), Washington, D. C.
Wackwitz, Mary B. (Mrs.), College Park
Waring, Elizabeth A., Annapolis
Weld, Ruth, Sandy Spring
Weller, Clara G. B. (Mrs.), Washington, D. C.
West, Dorothy H., Silver Spring
West, Margery H. (Mrs.), Washington, D. C.
White, Ruth O., Mt. Rainier
Wilkerson, Roberta T. (Mrs.), Malcolm
Wilkinson, Helen V., Silver Spring
Willard, Helen L., Poolesville
Wilson, Josephine E., Charlotte Hall
Woodward, Emily C., Annapolis
Worthington, Lilian, Annapolis
Yhnell, Berndt P., Greenbelt
Young, Alice I., Silver Spring
Young, Herschel, Greenbelt
Zeller, Grace R. (Mrs.), Rockville

Unclassified

Anderson, Marian, Hyattsville
Fluharty, Zelma L., Washington, D. C.
Glotfelty, Mary L., Oakland
Herbert, William L., Clearspring
Jones, Mildred B. (Mrs.), Annapolis
Larison, Oliver K., Chevy Chase
Mackie, Eleanore W., Elkton
Monocrusos, Marguerite S., Baltimore
Schiff, Charles, Annapolis
Sgrignoli, Mary, Garwood, N. J.
Smith, A. Grayson, Greensboro

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Annan, Clara L., Baltimore
Askew, Howard D., Baltimore
Aspel, Sister Mary Catherine, Baltimore
Baer, Bankard F., Baltimore
Baker, Allena R., Baltimore
Barnes, Marie, Baltimore
Barnes, May S., Baltimore
Baumgardner, Ralph W., Westminster
Beall, Irl H., Baltimore
Beam, Earl E., Baltimore
Becker, Dorothea A., Baltimore
Bell, Raymond E., Baltimore
Bem, Alma, Aberdeen

Benner, Elisabeth, Baltimore
Bentley, George, Washington, D. C.
Blacklock, Josiah A., Towson
Bochau, Marian H., Baltimore
Bomhardt, Norine L., Baltimore
Boone, Arrah B., Baltimore
Boone, Katherine O., Baltimore
Borchers, Charles M., Finksburg
Bordley, Madison B., Jr., Baltimore
Bosley, Edgar B. A., Baltimore
Bowen, Louise M., Pikesville
Boylan, Edward M., Baltimore
Bradford, Genevieve M., Baltimore
Braecklein, Howard W., Baltimore
Brandenburg, Emily J., Baltimore
Brooks, Mary M., Hampstead
Brown, Frances L., Woodstock
Brown, Ruth D., Woodstock
Bryant, Slater W., Jr., Glen Burnie
Buchman, Thomas W., Stevenson
Buettner, John A., Jr., Baltimore
Bullough, G. Van Ness, Baltimore
Burke, Miriam, Baltimore
Burns, Thelma W., Catonsville
Burton, Basil M., Monkton
Byer, Henry L., Dundalk
Cann, Charles S., Baltimore
Carey, F. Emmart, Baltimore
Carroll, Genevieve A., Baltimore
Cissel, Beatrice S., West Friendship
Clark, Emily L., Baltimore
Clayman, Henry, Baltimore
Clubb, Evelyn M., Baltimore
Conlin, Anne D., Baltimore
Crane, Amy H., Towson
Creery, Ruth C., Baltimore
Criminale, Emanuel E., Baltimore
Cromwell, Mildred V., Baltimore
Cronin, Catherine E., Baltimore
Davidson, David K., Baltimore
Degen, LeRoy G., Baltimore
Denaburg, Gertrude, Baltimore
Dennis, Evelyn G., Baltimore
Diehl, George C., Baltimore
Dobbs, Edward C., Baltimore
Dorfman, Julius, Washington, D. C.
Downs, Emma, Baltimore
Drechsler, Clotilde C., Westminster
Duncan, Lida Lee, Baltimore
Dunwoody, Ruth M., Baltimore
Edwards, Paul C., Baltimore
Elchenko, Alice V., Catonsville
Elliott, Helen O., Baltimore
Elliott, Robert V., Catonsville
Emig, Charles L., Towson
Enders, Grace H., Baltimore
Ercole, Henry A., Baltimore
Evans, William B., Jr., Ewell
Farrell, Alice C., Baltimore
Farrow, Blanche S., Baltimore
Faulkner, Floyd C., Baltimore
Forrester, Bernadette E., Baltimore
Foster, Sister Mary de Sales, Towson
Forster, Jack E., Baltimore
Francey, James, Baltimore
Freeze, Frank L., Baltimore
Fristoe, Virginia R., Linthicum Heights
Furness, Gordon W., Catonsville
Gerkens, Carl A., Baltimore
Gilbert, Loren G., Baltimore
Gilbert, Roland A., Laurel
Giles, Marie L., Baltimore
Gillen, Bertha C., Baltimore
Goden, Alan, Baltimore
Goldstein, Harold I., Baltimore
Goldstein, Mildred H., Baltimore
Gontrum, Charles H., Baltimore
Goode, Rubye M., Baltimore
Granek, Abraham, Baltimore
Greenfield, Albett N., Baltimore
Griefzu, George E., Baltimore
Grimsley, L. Beatrice, Baltimore
Grove, Elmer K., Baltimore
Gunderloy, Frank C., Pasadena
Haile, Margaret E., Towson
Hamilton, D. Kathleen B., Baltimore
Hare, Ruth C., Baltimore
Hardy, Earl C., Baltimore
Hay, Donald B., Catonsville
Hearn, Bessie V., Baltimore
Hedrick, Melvin D., Baltimore
Heghinian, Garabed W., Baltimore
Hennick, Donald C., College Park
Herwig, Edward H., Baltimore
Hibbitts, Jane D., Baltimore
Hilgartner, Robert W., Baltimore
Hill, Mary, Conowingo
Himmel, Mildred, Baltimore
Hisley, Lillian P., Baltimore
Hofher, Sister Mary Margaret Dolores, Baltimore
Holden, Delma, Baltimore
Holland, Mary T., Baltimore
Hollander, Margaret, Baltimore
Holter, Mary M., Fullerton
Hooks, A. D., Baltimore
Horn, George F., Baltimore
Horn, Robert H., Baltimore
Horney, Paul O., Annapolis
Hottes, William, Baltimore
Huffman, Julia K., Baltimore
Imler, Katharine B., Baltimore
Isabelle, J. Ovide, Baltimore
Jacobson, Sara, Baltimore
Jeschke, Curt A. H., Baltimore
Jirsa, Charles, Baltimore

Johnson, Eldred D., Upper Falls
Jones, George G., Baltimore
Jones, Julia E., Overlea
Jones, Ruth, Towson
Joyce, Brother Paul, Baltimore
Kaufman, Fred W., Baltimore
Keating, Lyda, Baltimore
Kehm, Marguerite C., Baltimore
Keller, Melvin J., Baltimore
Kinsey, Allan S., Jr., Baltimore
Kommalan, Marie A. E., Baltimore
Koontz, Paul M., Baltimore
Kornblatt, Joseph, Baltimore
Krieger, Mildred B., Baltimore
Kruse, Lillian, Baltimore
Kuehn, Peter, Baltimore
Kummell, Lillian M., Baltimore
Kypta, James F., Baltimore
Lambert, Arthur G., Baltimore
Lambert, Hildreth, Baltimore
Lassahn, John H. C., Baltimore
Laugerman, John B., Baltimore
Lawlis, Tilden T., Overlea
Levin, Sol, Baltimore
Lewis, Dorothy E., Baltimore
Little, Edward T., Baltimore
Lokstein, Henry, Baltimore
Magness, Harriet E., Baltimore
Malloy, Reginald D., Baltimore
Manakee, Edward Y., Baltimore
Mainen, Allan, Baltimore
Marriott, Beatrice, Baltimore
Marshall, Mary E., Baltimore
Martin, Arthur L., Baltimore
Martin, Carrie P., Baltimore
Mason, Sarah A., Baltimore
Matthaei, Lewis A., Baltimore
Mattingly, Nellie B., Baltimore
McCarriar, Herbert G., Baltimore
McCarthy, Mary L., Baltimore
McCarty, George W., Middle River
McCauley, Annie C., Baltimore
McConnachie, John A., Baltimore
McDairmant, John, Baltimore
McDonald, Gertrude, Baltimore
McGarvey, Maybelle P., Baltimore
McGuigan, Mary J., Halethorpe
McKeon, Brother Alvin, Baltimore
McLain, Elizabeth M., Baltimore
Medinger, Helen A., Baltimore
Medinger, John L., Baltimore
Mele, Virginia M., Baltimore
Mencke, Minnie R., Baltimore
Merkle, Clifford C., Baltimore
Meyer, E. Lee, Jr., Baltimore
Miller, Gladys G., Baltimore
Moler, Margaret V., Baltimore
Moles, William G., College Park
Montgomery, Marie L., Baltimore
Muhlenfeld, Louise F., Baltimore
Mohrlein, Julia S., Baltimore
Muller, Marion B., Bradshaw
Murphy, Ruth C., Baltimore
Nathanson, Jerome L., Baltimore
Nelson, Clifford L., White Hall
Nichols, John H., Baltimore
Ningard, Paul S., Baltimore
Norris, Cecil, Baltimore
Ochstein, Sophia J., Baltimore
Oder, Alice M., Baltimore
O'Keefe, William D., Baltimore
Owens, Doris E. C., Hanover
Parker, Mabel, Glen Burnie
Paul, Felix H., Baltimore
Peterson, Harold D., Baltimore
Phillips, J. LeRoy, Baltimore
Pieper, Eleanor C., Baltimore
Piersol, Charles D., Baltimore
Powell, George C., Baltimore
Provenza, Anna M., Baltimore
Pund, Ruth L., Baltimore
Rachanow, Louis, Baltimore
Rawlins, Lillian E., Baltimore
Reiter, Charles L., Baltimore
Reynolds, Joseph R., Baltimore
Rice, Dorothy, Baltimore
Rittenhouse, Harold F., Baltimore
Robinson, Harry L., Baltimore
Robinson, Helen S., Baltimore
Rock, Charles V., Baltimore
Rost, Florence B., Baltimore
Ruppel, Alvin G., Baltimore
Sachs, Frank N., Baltimore
Sadowski, Frank, Laurel
Schacht, Harriet M., Catonsville
Schmidt, Grace M., Baltimore
Schmidt, Robert F., Baltimore
Schneider, Ethel G., Baltimore
Schraiber, Maurice H., Baltimore
Schultz, Melvin J., Baltimore
Schwarzmann, George A., Baltimore
Scott, Roy R., Baltimore
Sellers, Robert M., Baltimore
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Shalowitz, Annette, Baltimore
Sheppard, Ethel C., Baltimore
Shepperd, Anna G., Upper Falls
Shepperd, Mary F., Upper Falls
Sherwood, Alice E., Baltimore
Shinault, Sarah R., Baltimore
Silbert, Celia S., Baltimore
Silbert, Keel, Baltimore
Slade, Margaret E., Baltimore
Smith, Harold D., Baltimore
Sokolsky, Henry, Baltimore

Spence, Albin W., Baltimore
Spencer, Alma Foster, Baltimore
Spencer, Ethel B., Baltimore
Sperry, Helen K., Baltimore
Stach, James A., Baltimore
Stein, Isadore L., Baltimore
Stewart, Margaret L., Baltimore
Stinnett, Bernard J., Baltimore
Streett, Georgie A., Bradshaw
Streett, V. Heuisler, Bradshaw
Stubbs, Ethel H., Baltimore
Stull, Robert B., Baltimore
Sweetland, Theodore R., Baltimore
Swisher, Elizabeth B., Baltimore
Taylor, Sylvanus E., Westminster
Temple, John F., Jr., Baltimore
Thomas, Eloise, Baltimore
Townsend. Lawrence R., Baltimore
Tustin, Howard D., Jr., Baltimore
Updegraff, Edward R., Berwyn
Valle, Joseph A., Baltimore
Valle, Philip J., Baltimore
Vaught, Joseph D., Baltimore
Vogel, B. Frank, Baltimore
Walker, Dunaway, Baltimore
Walker, Julia A., Reisterstown
Ward, Fred J., Baltimore
Ware, Margaret C., Baltimore
Washburn, Mary A., Baltimore
Weigate, Charles, Baltimore
Weiland, Richard, Baltimore
Weisheit, Teresa M., Baltimore
West, Elmer P., Baltimore
White, Walter, Baltimore
Wilenzick, Jerome, Baltimore
Willett, Grace A., Baltimore
Williams, Bessie S., Glen Arm
Williams, Clara E., Baltimore
Williams, L. Leighton, Baltimore
Williamson, Riley S., Baltimore
Willis, William N., Jr., Baltimore
Wonn, Gertrude V., Hampstead
Wroten, Arthur A., Baltimore
Yaffe, Paul, Baltimore
Yoder, Elizabeth M., Long Green
Young, Karl H., Baltimore
Zafren, Miriam, Baltimore
Zerbola, Alice R., Baltimore

(Subcollegiate)

Ahman, Bernard L., Jr., Baltimore
Alban, Alma C., Baltimore
Andrew, Virginia S., Baltimore
Auer, Edna M., Baltimore
Behm, Rosemary McN., Baltimore
Benser, Ethel M., Baltimore
Benson, Mark T., Baltimore
Biddison, Robin S., Baltimore
Bochau, Carl T., Baltimore
Bonadio, Michael F., Baltimore
Bouchelle, Robert B., Baltimore
Brady, Eleanor M., Baltimore
Brower, Edmund D., Towson
Burgan, Louella H., Baltimore
Campbell, John P., Catonsville
Cassard, Winifred B., Baltimore
Cummins, Thomas J., Baltimore
Davies, John F., Catonsville
Deems, Margaret Z., Baltimore
DeWitt, Charles P., III, Baltimore
Dorsey, James H., Baltimore
Downin, Russel A., Baltimore
Driscoll, Catherine B., Baltimore
Duhan, Stephenson, Baltimore
Duckworth, Margaret E., Baltimore
Eckert, Dorothy H., Baltimore
Forsyth, Irvin J., Baltimore
Endres, Harry J., Baltimore
Gerlach, Paul E., Baltimore
Gile, Miriam B., Baltimore
Heller, Tressa S., Middle River
Helm, Betty C., Baltimore
Herring, Vernon, Baltimore
Hurlock, Francis G., Baltimore
Insley, R. Leland, Baltimore
Jones, Eva T., Baltimore
Kaufman, Lillian M., Halethorpe
Litsinger, William C., Towson
McBride, Carroll W. J., Baltimore
McDaniel, Frances D., Baltimore
McDonnell, John A., Baltimore
McGinley, Edward, Baltimore
Merrill, Virginia M., Baltimore
Mezzullo, Frank A., Baltimore
Miller, Thomas L., Baltimore
Minderlein, Margaret M., Baltimore
Moores, William M., Baltimore
Mullin, Mary E., Baltimore
Mumford, Thomas, Baltimore
O'Connor, John J., Jr., Baltimore
Owens, Ann, Baltimore
Penn, Jane S., Baltimore
Powers, Margaret L., Baltimore
Redmond, Ann L., Baltimore
Robinson, Carroll, Baltimore
Rockwell, Merle G., Baltimore
Rouse, John G., Baltimore
Sandberg, John H., Fullerton
Schaff, Rose, Baltimore
Shank, Hazel R., Baltimore
Silverman, Alexander M., Baltimore
Sneeringer, William J., Jr., Baltimore

Stewart, Granvel F., Baltimore
Stonestreet, Guy W., Baltimore
Swanson, Blanche E., Baltimore
Trapp, Frederick S., Baltimore
Warner, Richard G., Larchmont
Weaver, William K., Jr., Towson
Weller, Joanna I., Baltimore
White, Helen F., Baltimore
Whitehouse, Alton, Baltimore
Whitmore, John McC., Reisterstown
Widman, George J., Baltimore
Wilson, C. Roland, Baltimore
Woodyear, William E., Baltimore
Zielski, Rose L., Baltimore

VOCATIONAL TEACHER TRAINING COURSES, WASHINGTON, D. C.

Department of Industrial Education

Anderson, Joseph A., Washington, D. C.
Baker, Russell A., Washington, D. C.
Barnfather, Matthew M., Washington, D. C.
Bland, Annie E., Washington, D. C.
Bolt, John B., Washington, D. C.
Bowden, Bernice S., Arlington, Va.
Clark, Della L., Washington, D. C.
Cleary, Hubert H., Washington, D. C.
Cleaveland, Herbert, Takoma Park
Combs, Charles E., Washington, D. C.
Cook, Edgar I., Washington, D. C.
Cook, Gertrude, Washington, D. C.
Cooney, Edward L., Washington, D. C.
Cowden, Cornelia G., Washington, D. C.
Crankshaw, Harold G., Washington, D. C.
Duncan, John M., Washington, D. C.
Elson, Hulda M., Washington, D. C.
Ferguson, Jonathan D., Silver Spring
Fleming, Euclid S., Washington, D. C.
Foster, Charles F., Washington, D. C.
Gilbert, Roland, Laurel
Ginberg, Ethel, Washington, D. C.
Gottwals, Gene A., Silver Spring
Griest, Walter S., Washington, D. C.
Hartley, Edgar R. C., Washington, D. C.
Hasbach, Michael F., Washington, D. C.
Heironimus, Clark, Washington, D. C.
Holzer, Emma A. F., Washington, D. C.
Horstkamp, Francis A., Washington, D. C.
House, Matthew J., Washington, D. C.
Keirn, Etta L., Washington, D. C.
Kirk, Harold H., Washington, D. C.
Knox, Howard L., College Park
Knox, Lloyd T., College Park
Lee, John P., Bethesda
Leesnitzer, Brownley, Washington, D. C.
Magee, John E., Washington, D. C.
Maust, Edwin E., Washington, D. C.
Mitchell, Helen N., Washington, D. C.
Moore, Alice M., Hyattsville
Murray, Lucile W., Washington, D. C.
Olle, Arlyn F., Washington, D. C.
Reily, James R., College Park
Remmlein, Cyril D., Washington, D. C.
Stevens, Helen M., Washington, D. C.
Washburn, Carleton T., Washington, D. C.
Weeks, Paul D., Washington, D. C.
White, Robert A., Washington, D. C.
Wilson, Joseph H., Washington, D. C.
Woddell, J. Howard, Washington, D. C.
Wondrack, Arthur J., Washington, D. C.
Wondrack, Walter J., Washington, D. C.
Wood, Louis L., Washington, D. C.
Zearfoss, John E., Alexandria, Va.

COLLEGE OF ENGINEERING

Senior Class

Bamman, Richard K., Coltons Point P. O.
Bebb, Edward K., Chevy Chase
Brashears, Richard S., Washington, D. C.
Budkoff, Nicholas A., Lynn, Mass.
Carpenter, Byron L., Washington, D. C.
Carroll, Richard W., Philadelphia, Pa.
Clarke, Joseph A., Jessup
Coleman, Thomas L., Washington, D. C.
Collins, James E., Crisfield
Cooke, Alfred A., Hyattsville
Corkran, William H., Trappe
Cox, Junior N., Baltimore
Cranford, Leonard C., Washington, D. C.
DeArmey, John J., Windber, Pa.
Fletcher, Arthur W., Linthicum Heights
Gallagher, Harry G., Relay
Gerber, Sigmund I., Washington, D. C.
Greenwood, Orville W., Cottage City
Grogan, Leslie S., Washington, D. C.
Hennighausen, Louis K., Jr., Baltimore
Herbert, Wilbur M., Baltimore
Herman, Harold, Washington, D. C.
Kaminski, Joseph, Baltimore
Kestler, Paul G., Baltimore
Kinney, Robert W., Washington, D. C.
Knust, Herman R., Jessup
Lanham, Paul T., Lanham
Lapoint, George M., Baltimore
LeMat, Lee E., Washington, D. C.
Lodge, Robert J., Baltimore

Lozupone, Frank P., Chevy Chase
Marzolf, Joseph M., Deale
Moran, Joseph T., Westernport
Morris, Francis C., Washington, D. C.
Mulitz, Milton M., Washington, D. C.
Northrop, Sanford E., Hagerstown
Odell, Charles N., Ellicott City
Otten, Leonard J., Parkville
Parsons, Charles R., Washington, D. C.
Poole, Lewis A., Annapolis
Purdum, William D., Glyndon
Rector, Ralph L., Washington, D. C.
Russell, Joseph S., Jr., Maddox
Shaw, Bowen W., Silver Spring
Shipe, J. Kelso, Washington, D. C.
Simms, Harvey C., Silver Spring
Slicer, William A., Gaithersburg
Stedman, Henry T., Catonsville
Steiner, Warren E., Washington, D. C.
Storrs, Gardner H., Linthicum Heights
Warner, Robert E., Baltimore
Watkins, William H., Washington, D. C.
Weeks, Loraine H., Mt. Lake Park
Wilson, J. Gibson, Jr., Washington, D. C.
Wilson, Robert M., Washington, D. C.
Yocum, Wilbur F., Chevy Chase

Junior Class

Bauernschmidt, John N., Baltimore
Blazek, Frank J., Baltimore
Bollinger, George W., Elkton
Booze, William C., Baltimore
Bralove, William, Jr., Washington, D. C.
Brockman, Roy C., Baltimore
Buhl, Victor C., Baltimore
Carter, John M., Baltimore
Clark, John W., Jr., Hancock
Cromwell, Howard L., Washington, D. C.
Crump, Ralph F., Frostburg
Custer, John D., Washington, D. C.
Darling, William M., Washington, D. C.
Daudt, Louis R., Wilmington, Del.
Davidson, Donald C., Washington, D. C.
Dorr, George W., Washington, D. C.
Downs, Hugh G., Jr., Hagerstown
Filbert, Howard C., Jr., Baltimore
Finton, James R., Washington, D. C.
Gannon, William F., Westernport
Glaze, Francis W., Jr., Hyattsville
Haddaway, Vaden J., Woodlawn
Hall, Thomas A., Washington, D. C.
Harmon, Robert B., Takoma Park
Haskin, Lawrence H., Takoma Park
Hatchett, Samuel E., Washington, D. C.
Hawkins, Edward C., Catonsville
Heil, George J., Jr., Baltimore
Hitch, Thomas E., Washington, D. C.
Hodgins, Lawrence J., Jr., College Park
Hughes, Thomas A., Washington, D. C.
Hutton, Junius O., Chevy Chase
Imus, Alden E., Jr., Mt. Rainier
Jackson, Robert L., Bethesda
Jensen, Willard C., Washington, D. C.
Keller, Holly M., Bethesda
Kimball, Henry F., Washington, D. C.
Kinder, Gilbert E., Millersville
Klawans, Bernard, Annapolis
Lanigan, James M., Washington, D. C.
Laughead, Robert W., Bethesda
Lee, Gin H., Washington, D. C.
Marzolf, John C., Deale
Mattingly, Robert D., Riverdale
McCusker, Richard W., Pikesville
Mehring, Arthur C., Capitol Heights
Meyer, Carl W., Baltimore
O'Connell, Daniel T., Washington, D. C.
O'Farrell, Rufus E., Jr., Washington, D. C.
Onnen, Donald S., Baltimore
Powell, John M., Dorsey
Riley, Thomas W., College Park
Rimmer, William, University Park
Saltzman, Ernest C., Washington, D. C.
Shivoder, Charles A., Jr., Fullerton
Siebeneichen, Paul O., Washington, D. C.
Sloan, James DeW., Cumberland
Smith, Stanley H., Jr., Washington, D. C.
Stevens, John F., III, Annapolis
Stewart, Carl H., Jr., Baltimore
Streep, Samuel C., Silver Spring
Suter, Walter H., Jr., Baltimore
Thompson, Jack H., Chevy Chase
Timberlake, Turner G., Magnolia
Watson, Thomas E., Jr., St. Inigoes
Whalen, Stanley M., Washington, D. C.
Wilson, Lawrence L., Baltimore
Witherspoon, Fred L., Jr., Silver Spring
Worden, John F., Berwyn
Young, Charles M., Washington, D. C.

Sophomore Class

Ackerman, John H., Baltimore
Agress, Joseph, Cumberland
Aiken, Albert S., Cheverly
Altman, Edward R., Washington, D. C.
Anderson, Bruce S., Hyattsville
Augustine, Francis W., Cheverly
Baker, Thomas, San Juan, Puerto Rico
Beaumont, Charles R., Jr., Silver Spring
Becker, Clarence E., Baltimore
Berg, Hyman A., Baltimore

Biggs, Anson W., Washington, D. C.
Bilbrey, Joseph H., Takoma Park
Blondheim, Leonard, Baltimore
Boyer, Rodney L., Highland.
Bransdorf, Richard R., Washington, D. C.
Bridge, Richard, Takoma Park
Bridges, J. Ralph, Baltimore
Brinson, John R., Brentwood
Carpenter, Frank G., Chevy Chase
Chirieleison, Joseph P., Washington, D. C.
Clark, Fitzhugh T., Germantown
Cochrane, Robert B., Jr., Baltimore
Cordyack, John E., Baltimore
Crockett, David T., Jr., University Park
Cronin, Randall C., Joppa
Curtin, John F., Laurel
Davis, Donald D., Hyattsville
DeMarr, Creighton O., Berwyn
Deming, Andrew S., Washington, D. C.
Douglas, Bruce A., Baltimore
Dow, Neal, Jr., Washington, D. C.
Earp, Harold E., Jr., Washington, D. C.
Eberhart, Jack M., Baltimore
Edgerton, James F., Washington, D. C.
Edwards, Paul M., Washington, D. C.
Ellsworth, William M., Washington, D. C.
Emrich, Howard F., Baltimore
Evans, Kenneth J., Takoma Park
Falck, David A., Baltimore
Farnsworth, John K., Washington, D. C.
Finlayson, Thomas R., Bethesda
Fishkin, Joseph, Washington, D. C.
Forsythe, Dixon L., Baltimore
Foss, Kenneth E., Relay
Freemire, Elmer L., Takoma Park
Freeze, Paul D., Thurmont
Fusfeld, Robert D., Washington, D. C.
Gearhart, Robert A., Alexandria, Va.
Gillett, Thornton R., Washington, D. C.
Glasgow, Raymond J., Hyattsville
Godwin, Gurney L., Baltimore
Graham, William McL., Baltimore
Greene, Robert E., Jr., Mt. Rainier
Griggs, Louis C., Cumberland
Groves, Robert A., Woodlawn
Hall, Lacy, Seat Pleasant
Hathaway, Norman E., University Park
Haywood, Stuart T., Westernport
Hege, Jeremiah C., Washington, D. C.
Hessler, Bernard P., Washington, D. C.
Hink, Henry M., Annapolis Junction
Hoddinott, Reginald K., Jr., Baltimore
Hopkins, Page F., Silver Spring
Hoskinson, Jack W., Washington, D. C.
Huggins, Lloyd G., Fort Meade
Hughes, Vincen J., Jr., Baltimore
Hutchinson, John LeR., Washington, D. C.
Jones, Nelson R., Washington, D. C.
Kaiser, Herman F., Washington, D. C.
Karr, Roger W., Bethesda
King, Arthur R., Silver Spring
Klein, Charles F., Baltimore
Klug, Howard J., Washington, D. C.
Kursch, Robert F., Washington, D. C.
Kurz, Philip E., Takoma Park
Lambert, John L., Baltimore
Lewis, Bernard M., Washington, D. C.
Lewis, George W., Jr., Chevy Chase
Lopata, John, Baltimore
Malcolm, James E., Silver Spring
Males, Irwin J., Washington, D. C.
Maloney, William F., Jr., Govans
Maslin, William R., Port Chester, N. Y.
Maxcy, Donald C., Washington, D. C.
McFall, Russell W., Washington, D. C.
Miller, James H., University Park
Mitchell, John T., Washington, D. C.
Moore, Henry W., Washington, D. C.
Morin, Herbert L., Baltimore
Morris, Robert L., Baltimore
Moss, Howard M., Tokyo, Japan
Nitzel, Henry D., Baltimore
Owens, Benjamin M., Landover
Patch, Richard L., Washington, D. C.
Peters, Roy F., Washington, D. C.
Peterson, Ernest H., Billingsley
Pfeiffer, Arthur M., Jr., Baltimore
Piozet, Charles F., College Heights
Pittiglio, Clayton L., Washington, D. C.
Platshon, Alvin, Washington, D. C.
Pyles, George V., Anacostia, D. C.
Randall, Joseph H., Boyds
Rawley, Weldon N., Jr., Hyattsville
Reckner, Jack V., Severna Park
Redd, William M., Jr., Baltimore
Reynolds, George E., Jr., Washington, D. C.
Rinehart, Elijah, Relay
Rives, Thomas McD., Jr., Washington, D. C.
Robertson, Samuel T., Jr., Bethesda
Rodgers, Kelly, Washington, D. C.
Rosenberg, Norman H., Baltimore
Russell, Robert W., Frederick
Schlenoff, Maurice, Baltimore
Schmidt, Francis R., Washington, D. C.
Schumacher, Irwin J., Washington, D. C.
Searls, Robert W., Baltimore
Shulman, Fred, Washington, D. C.
Sirkis, Joseph A., Washington, D. C.
Smith, Earl W., Baltimore
Smith, Paul J., Silver Spring
Staines, P. Raymond, Severna Park
Steed, Leon S., Bethesda
Sunier, Emile H., Washington, D. C.
Tierney, Louis M., Bennings, D. C.

Tilley, William R., Bel Air
Turner, Norris H., Hyattsville
Underwood, Vahl E., Washington, D. C.
Valaer, Charles W., Washington, D. C.
Valentine, Arthur H., Dundalk
Walker, Hobart T., Jr., Washington, D. C.
Wannall, George L., North Beach
Warehime, Norwood R., Baltimore
Watkins, Frank G., Baltimore
Waxman, Meyer, Baltimore
Webster, Edward, Washington, D. C.
Westfall, Robert R., Hyattsville
White, Roland G., Jr., Washington, D. C.
Wick, Donald H., Hyattsville
Williams, John W., Salisbury
Wilson, Henry D., Takoma Park
Witkowski, Thomas T., Baltimore
Wolf, Seymour D., South Fallsburg, N. Y.
Young, Willis H., Jr., Riverdale

Freshman Class

Allen, Redfield W., Silver Spring
Altimont, Orlando W., Chevy Chase
Anderson, Benjamin E., University Park
Appleby, William A., Washington, D. C.
Archibald, John H., Washington, D. C.
Arentson, Robert M., Silver Spring
Armstrong, Richard W., Cabin John
Atkinson, Harold B., Jr., Chevy Chase
Avery, John B., Washington, D. C.
Avey, Ray J., Washington, D. C.
Bailey, Leslie E., Hyattsville
Baker, Frank G., Jr., Annapolis
Barlow, Nathan B., West Cedar City, Utah
Barrett, Jack R., Catonsville
Barrett, James H., Jr., Annapolis
Barrett, Thomas F., Washington, D. C.
Bates, Elwood, Annapolis
Batson, David R., Washington, D. C.
Bean, Tarleton S., Jr., Silver Spring
Beardsley, Thomas D., Berwyn
Beasley, Jack P., Burtonsville
Bell, Forrest H., College Park
Bemis, Robert K., Washington, D. C.
Beveridge, John, Chevy Chase
Blood, Gordon F., Washington, D. C.
Blumenstein, Otto J., Washington, D. C.
Boothe, Daniel U., Washington, D. C.
Bosley, William H., Ruxton
Bowser, Richard B., Silver Spring
Boyer, Edward L., Alexandria, Va.
Brown, Charles E., Washington, D. C.
Brown, David T., Millersville
Brumback, Thomas B., Bethesda
Bryan, John W., Berwyn
Buck, Sidney E., Kensington
Burlin, Ralph M., Port Deposit
Burton, M. Durant, Washington, D. C.
Butler, Harry M., Edmonston
Caldwell, Albert T., Conowingo
Campbell, William R., Brentwood
Chapin, Giles L., Washington, D. C.
Chapman, Richard G., Baltimore
Chapman, William B., Chevy Chase
Chessler, Marvin L., Baltimore
Clancy, William J., Washington, D. C.
Clark, George L., Silver Spring
Clark, James A., Takoma Park
Clark, Robert W., Silver Spring
Collison, Frederic E., Takoma Park
Cook, Fraise A., Kensington
Cook, William T., Washington, D. C.
Coster, Joseph B., Jr., Baltimore
Covell, Donald E., Fort Meade
Cowgill, Frank A., Oaklyn, N. J.
Crammond, James D., Washington, D. C.
Crampton, Erwin E., Washington, D. C.
Crone, John L., Mt. Rainier
Crone, Norman A., Mt. Rainier
Crouthamel, Harry R., Philadelphia, Pa.
Cumberland, John I., Jr., Washington, D. C.
Cunningham, Norman J., Washington, D. C.
Cunningham, William J., Silver Spring
Daniels, Edward L., Fort Monmouth, N. J.
Davis, James R., Chevy Chase
Delcher, Howard C., Baltimore
DePue, Leland A., Takoma Park
Dickinson, John F., Bethesda
Dietz, Charles R., Mt. Hayes
Drew, Howard R., Chevy Chase
Drysdale, William B., Washington, D. C.
Eastment, Norton D., Silver Spring
Ebner, Rolland A., Washington, D. C.
Egloff, Julius, Washington, D. C.
Eicker, Carl W., Govans
Ellett, William C., Washington, D. C.
Evans, Eugene M., Takoma Park
Farnham, Arthur C., Washington, D. C.
Fearnow, Dwight O., Williamsport
Fetters, David R., Baltimore
Fiedler, Lionel M., Washington, D. C.
Fisher, Evan D., Takoma Park
Flax, Louis, Washington, D. C.
Floyd, Richard I., Baltimore
Forbes, James E., Baltimore
Forrester, Robert J., Berwyn
Fradin, Samuel, Baltimore
Frazier, Donald L., Baltimore
Fuchs, Richard G., Baltimore
Gassinger, Henry A., Baltimore
Gast, William R., Cheverly

Geller, Ulrich A., Chevy Chase
Ginder, William M., Baltimore
Gingell, Vernon R., Washington, D. C.
Golomb, Jerome W., Baltimore
Goode, Adrian F., Westbury, N. Y.
Gore, Oliver R. C., Cambridge
Goss, David A., Baltimore
Goss, Milton E., Mt. Rainier
Gough, Eugene A., Washington, D. C.
Grable, William H., Hyattsville
Grace, George M., Easton
Graham, Grantham T., Washington, D. C.
Gransee, Charles L., Linthicum Heights
Grant, Herbert J., Washington, D. C.
Grant, William R., Washington, D. C.
Green, Morris W., Washington, D. C.
Hale, F. Joseph, Washington, D. C.
Hall, Philip G., Govans
Harmon, George W., Silver Spring
Harrigan, Richard K., Chevy Chase
Harrison, David L., Baltimore
Haselbarth, John E., Riverdale
Hatfield, Robert V., Washington, D. C.
Hayleck, Charles R., Jr., Baltimore
Head, Bayard M., Hyattsville
Heintz, Charles E., Baltimore
Hill, Frederick L., Washington, D. C.
Hilliard, Eleanor B., Baltimore
Hobbs, Edward V., Washington, D. C.
Hochgesang, Charles F., Washington, D. C.
Hoffman, Edward L., Lansdowne
Hoffman, Jacob L., Hagerstown
Hoffman, James L., Relay
Hoffman, Leon D., Jr., Cranford, N. J.
Hollingsworth, Roy J., Washington, D. C.
Holmes, Gail R., Washington, D. C.
Hopkins, Charles P., Silver Spring
Horn, James E., Bethesda
Horst, Joseph J., Baltimore
Howland, Lionel B., Jr., Laurel
Hurlock, Ellsworth A., Jr., Baltimore
Iddings, Lloyd A., Baltimore
Ireland, Thornton E., Lansdowne
Kabik, Irving, Washington, D. C.
Keat, William G., Washington, D. C.
Keller, Howard L., Baltimore
Kelley, Raymond M., Silver Spring
Kennedy, James L., Jr., Baltimore
Kessinger, Jackson A., Silver Spring
Keys, Whitney, Washington, D. C.
Kidwell, Guy S., Hagerstown
Kimmel, Robert E., Jr., Piedmont, W. Va.
King, William R., Takoma Park
Kirk, Millard F., Philadelphia, Pa.
Klinefelter, John W., Washington, D. C.
Kohloss, Frederick H., Bethesda
Konigsberg, Tolbert H., Washington, D. C.
Lasher, Arthur E., Silver Spring
Latimer, Roberts E., Jr., Silver Spring
Leasure, Harry S., Jr., Hagerstown
Lee, Harrison, Washington, D. C.
Leonberger, Melvin F., Washington, D. C.
Love, Charles C., Hollywood
Lozupone, Louis A., Chevy Chase
Luber, Joseph L., Washington, D. C.
Lusby, Edward W., Arlington, Va.
Magruder, Donald R., Washington, D. C.
Mariner, Joseph V., Baltimore
Marsden, James N., Chevy Chase
Marshall, Byron T., Taylors Island
Martin, George E., Baltimore
Mathias, John R., Mt. Rainier
Mattix, Paul R., Silver Spring
Maxwell, Robert W., Arlington, Va.
May, John O., Bethesda
McCarty, John E., Cumberland
McGogney, Charles H., Washington, D. C.
McIntyre, John T., Washington, D. C.
McKee, Robert C., Chevy Chase
McKinstry, Vernon LeR., Hyattsville
Meredith, Henry J., Bethesda
Merriken, Lyal N., Federalsburg
Merritt, William T., Easton
Meyer, Edward M., Washington, D. C.
Miller, Robert W., Silver Spring
Miller, William B., Washington, D. C.
Montgomery, Henry T., Lanham
Moore, Springs R., Bethesda
Moriarty, Ernest C., Jr., Washington, D. C.
Mortimer, Samuel H. J., Baltimore
Moulden, Owen, Washington, D. C.
Murphy, Arthur A., Washington, D. C.
Nairn, Geoffrey MacD., Jr., Silver Spring
Naylor, Arthur E., Jr., Oakland
Newell, Richard B., Govans
Newgarden, George J., III, Washington, D. C.
Niedemair, William I., Washington, D. C.
Niederstrasser, Robert E., Washington, D. C.
O'Dea, Stephen F., E. Riverdale
O'Malley, John F., Manokin
Otto, Ernest A., Eastport
Overstreet, William B., Washington, D. C.
Owens, Elmer H., Jr., Hanover
Owens, Emmet D., Washington, D. C.
Pavesich, James A., Baltimore
Phillips, Bertram W., Catonsville
Pindell, William H., Washington, D. C.
Porter, Leonard W., Catonsville
Powell, Ernest G., Mt. Rainier
Preston, Robert E., Cottage City
Provost, J. Stanley, Greenbelt
Queen, Galen K., Washington, D. C.
Rakestraw, Dale L., Baltimore
Raum, Mark, Washington, D. C.

Rawling, Arnold G., Luke
Rawls, Fletcher H., Jr., Kensington
Raymond, Charles B., Bethesda
Reckner, Richard G., Severna Park
Reynolds, Nowland E., Relay
Rice, Harold D., Jr., Silver Spring
Rice, Leonard M., Baltimore
Richer, Kenneth A., Lansdowne
Ridout, Orlando IV, Annapolis
Riley, John B., Germantown
Rivello, Robert M., Washington, D. C.
Roudabush, Robert, Washington, D. C.
Rowny, Carroll L., Dundalk
Runkle, George W., Washington, D. C.
Saha, Sidney G., Washington, D. C.
Schack, William R., Washington, D. C.
Schwarz, Howard F., Baltimore
Seidel, William F., Catonsville
Senser, Lisle H., Mt. Rainier
Seymour, Gilbert B., Washington, D. C.
Shank, James W., Keedysville
Sheridan, Hugo G., Washington, D. C.
Sherwood, John H., Jr., Baltimore
Shields, James R., Washington, D. C.
Shipp, Loy M., Mt. Rainier
Simmons, Don E., Washington, D. C.,
Singleton, Carey B., Jr., Hollywood
Skinner, Harold B., Silver Spring
Smith, Robert H., Silver Spring
Smith, Thomas W. E., Millersville
Sohn, Edward D., Millersville
Solomon, Burton, Washington, D. C.
Sparhawk, William N., Jr., Washington. D. C.
Spessard, Lawson W., Colesville
Spicer, James R., Towson
Spielman, John R., Washington, D. C.
Stafford, Willis R., Easton
Stevenson, Robert K., Baltimore
Stewart, John H., Silver Spring
Strauss, Henry M., Woodlawn
Stuntz, George R., Jr., Washington, D. C.
Swann, William H., Faulkner
Tawes, Philip W., Crisfield
Thompson, Henry G., Baltimore
Thumm, C. Ashton, Baltimore
Tibbals, Edward A., Jr., Bethesda
Todd, Norman W., Preston
Trexler, Jay E., Baltimore
Trott, Clarence W., Hyattsville
Uglow, Kenneth MacM., Jr., Wellington, Va.
Ullman, Guy N., Washington, D. C.
Updegraff, James E., Berwyn
Vinton, Kenneth W., Silver Spring
Walker, Elmer E., Hyattsville
Walker, John H., Greenbelt
Wannan, Jere C., Washington, D. C.
Warthen, Willard A., Jr., Kensington
Waters, Roger K., Jr., Germantown
Webster, George C., Washington, D. C.
Wegman, Ernest C., Baltimore
Weller, Edward F., Baltimore
Whinerey, Donald F., Washington, D. C.
Whitcomb, Martin F., Baltimore
Whittemore, Donald P., Greenbelt
Widman, Joseph W., Washington, D. C.
Willett, John W., Jr., Relay
Williams, Leonard F., Takoma Park
Wiseman, Ralph F., Washington, D. C.
Wode, William, Baltimore
Wolman, Sidney S., Washington, D. C.
Wood, Robert E., Catonsville
Yeatman, Robert H., Hyattsville
York, Warren M., Jr., Washington, D. C.
Ziarko, Casimir C., Washington, D. C.
Zimmer, Howard C., Jr., Towson

Part Time

Barr, Paul C., Washington, D. C.
Farrall, John A., Washington, D. C.
Fox, Gabriel, Washington, D. C.
Hewitt, Frederic M., Baltimore
Holbrook, Charles C., College Park
Leyba, Joseph M., Jr., New York, N. Y.
Mattingly, Lawrence J., Washington, D. C.

GRADUATE SCHOOL

Professional Schools, Baltimore

Allen, Benjamin F., Baltimore
Barry, Richard H., Brownsville, Pa.
Bellman, Frank A., Baltimore
Bolth, Franklin A., Church Hill
Cone, Nellie M., Dundalk
Cook, Nevis E., Waleska, Ga.
Cross, John M., Little Falls, N. J.
DeDominicis, Amelia C., Baltimore
Dittrich, Theodore T., Baltimore
Dorsch, Joseph U., Baltimore
Ellis, Fred W., Heath Springs, S. C.
Everett, Guy M., Missouri Valley, Iowa
Foster, Carroll P., Baltimore
Friedman, David, Dundalk
Gakenheimer, Walter C., Catonsville
Glickman, Shirley M., Baltimore

Hager, George P., Baltimore
Hamlin, Kenneth E., Jr., Baltimore
Hewing, Ada C., Baltimore
Heyman, Bernice, Baltimore
Jarowski, Charles, Baltimore
Karel, Leonard, Baltimore
Levin, Nathan, Baltimore
Liss, Nathan I., Baltimore
Loftus, Howard E., Dundalk
McGinity, F. Rowland, Baltimore
McNamara, Bernard P., Baltimore
Merdinyan, Edward F., Pawtucket, R. 1.
Monke, J. Victor, Litchfield, Ill.
Raudonis, John A., Hudson, N. H.
Ruddy, A. Wayne, Auburn, Neb.
Sussman, Bernard, Baltimore
Thompson, Robert E., Waubay, S. Dak.
Zenitz, Bernard, Baltimore

Vocational Teacher Training Courses, Baltimore

Brode, Carl K., Catonsville
Acree, Samuel, Baltimore
Brooks, Helen G., Baltimore
Crosby, Fred D., Baltimore
Denaburg, Jerome, Baltimore
Dudderar, Charles W., Baltimore
Edwards, William L., Catonsville
Ekas, Alice A., Baltimore
Grimes, John J., Catonsville
Gross, Charles R., Stemmers Run
Haefner, William F., Baltimore
Hoffacker, George W., Baltimore
Horvath, Kenneth, Baltimore
Hubbard, Arthur M., Baltimore
Hucksoll, William J., Baltimore
Knight, Frances L., Baltimore
Lindley, L. Lee, Baltimore
Longley, Edward L., Baltimore
Lund, Gerald L. V., Baltimore
Mahar, John D., Catonsville
Marx, Ernest B., Baltimore
Messick, Carter D., Annapolis
Meyer, Arthur A., Baltimore
Meyer, Frederick, Owings Mills
Myrick, Floyd A., Timonium
Nachlas, Bernard, Baltimore
Ossenmacher, Sister Philomena, Baltimore
Proctor, James O., Baltimore
Randall, Roland E., Baltimore
Rose, Joan K. M., Baltimore
Selsky, S. Samuel, Baltimore
Silverman, Frank, Baltimore
Smith, Robert L., Baltimore
Solomon, Christine R., Dundalk
Storms, Sister Barbara, Baltimore
Whipple, Stanley R., Baltimore
Ziefle, Howard E., Baltimore

College Park

Aarons, Ralph, Baltimore
Allard, Howard F., Arlington, Va.
Allen, Benjamin F., Baltimore
Allen, Rowannetta S., Anacostia, D. C.
Anspon, Harry D., Washington, D. C.
Archer, Louise V., Berwyn
Armstrong, Herbert E., McDonogh
Arthur, Irvin L., Cumberland
Atkins, Eileen N., Halethorpe
Axelrod, Bernard, Greenbelt
Bachman, Irvin, Baltimore
Backenstoss, Ross E., Jr., Washington, D. C.
Bailey Donald E., Takoma Park
Bailey, Douglas A., Jr., Takoma Park
Bailey, Wallace K., College Park
Balch, Clyde W., Hyattsville
Bandel, David, Lanham
Banta, Frank G., Franklin, Ind.
Barnett, Robert E., Annapolis
Bartilson, Thomas H., University Park
Barto, Edward E., Leonardtown
Beamer, William H., Youngstown, Ohio
Beck, Ethel, Baltimore
Beck, Sylvan E., Baltimore
Bellows, John M., Jr., Maynard, Mass.
Benton, Charles L., Jr., Laurel
Berman, David Z., Rochester, N. Y.
Berry, Henrietta T., Chevy Chase
Bertschy, Harry A., Gaithersburg
Besley, Arthur K., Hyattsville
Bickley, William E., Jr., Martel, Tenn.
Biskin, Shirley L., Takoma Park
Blond, Bernard, Washington, D. C.
Bolth, Franklin A., Church Hill
Boote, Howard S., Greenbelt
Bower, Francis M., Mt. Rainier
Bowers, John L., Troy, Texas
Boyd, Lola E., Panama City, R. P.
Bradley, Robert J., Hyattsville
Branca, James L., Washington, D. C.
Braungart, Dale C., Washington, D. C.
Bredekamp, Marriott W., Silver Spring
Brewer, Charles M., Hyattsville
Brittingham, William H., Portsmouth, Va.
Brooks, Vernon L., Washington, D. C.
Brownell, James F., Washington, D. C.
Browning, Laura B. (Mrs.), Mt. Airy
Bruce, Robert McC., Wooster, Ohio
Bruening, Charles F., Overlea

Brune, Richard C., Overlea
Buddington, Arthur R., College Park
Campbell, Marjorie H. (Mrs.), Washington, D. C.
Carroll, Floyd D., Bostwick, Nebr.
Carter, Edward P., College Park
Carter, Harold E., Chevy Chase
Chadwick, Louise A. (Mrs.), Washington, D. C.
Chapman, Aurelius F., Marietta, Ga.
Cheney, John P., Oswego, N. Y.
Chesley, Henrietta E., Baltimore
Christie, Mary E. (Mrs.), Washington, D. C.
Clarke, Frank E., Westminster
Colip, Louise R. (Mrs.), Mt. Rainier
Collings, Helen T., Washington, D. C.
Comer, Florence R., Hyattsville
Conti, Joseph G., Dunkirk, N. Y.
Converse, Henry T., Jr., Beltsville
Cotton, Cornelia M., Bethesda
Cotton, John, Takoma Park
Cowgill, William H., Hyattsville
Crane, Julian C., College Heights
Creitz, Elmer C., Washington, D. C.
Culton, Thomas G., Parksville, Ky.
Curtis, Arthur H., Hyattsville
Custis, William K., Riverdale
Dantzig, Henry P., Hyattsville
Davidson, Nellie M. (Mrs.), Silver Spring
Dawson, Roy C., Washington, D. C.
Dittmar, Gordon F., Baltimore
Dobres, Robert M., Baltimore
Donahay, Katharine, Washington, D. C.
Donnally, Bessie S. (Mrs.), Washington, D. C.
Dorsey, Carl K., Fulton, Mo.
Douglas, James R., Lafayette, Ind.
Downey, Mylo S., College Park
Druz, William, Baltimore
Duvall, Wilbur I., Gaithersburg
Eccles, Robert L., Hansford, W. Va.
Emshwiller, Susie B. (Mrs.), Washington, D. C.
Ensor, Samuel S., New Windsor
Evangelist, Alaric A., Jenkintown, Pa.
Everson, Emma M. (Mrs.), College Park
Ezell, Boyce DeW., Takoma Park
Fairbank, Thomas P., Baltimore
Fisher, Bertha G., Greenbelt
Fisher, Herbert H., Greenbelt
Florestano, Herbert J., Annapolis
Fontaine, Jesse T., Jr., Richmond, Va.
Form, William H., Rochester, N. Y.
Forman, Sylvan E., Baltimore
Fosdick, Clara B. (Mrs.), Riva
Fox, Frances C. (Mrs.), Silver Spring
Friedman, Emanuel, New York, N. Y.
Frush, Harriet L., Pella, Iowa
Fulboam, Elsie G., Andover, N. J.
Fulton, George P., Washington, D. C.
Gakenheimer, Walter C., Catonsville
Galbreath, Paul McC., Street
Gay, John R., Washington, D. C.
Gibbons, Milo V., Ocean Grove, N. J.
Gibson, Margaret H., Washington, D. C.
Gilbert, Howard W., Yellow Springs, Ohio
Gilbert, Neil A., Centerburg, Ohio
Glasgow, Dorcas T., (Mrs.), Hyattsville
Godfrey, Albert B., Berwyn
Goebel, Wallace B., Baltimore
Golden, Lex B., Berwyn
Goldman, Leon, Washington, D. C.
Goldsborough, George H., Denton
Goldsmith, John S., College Park
Goldsmith, Margaret T. (Mrs.), College Park
Grand, Joseph A., Washington, D. C.
Greenfield, Ray H., Detroit, Mich.
Griffin, Lucille H. (Mrs.), Washington, D. C.
Griggs, William H., Adair, Mo.
Grober, Samuel, New York, N. Y.
Groschke, Albert C., Erie, Pa.
Grover, Leslie S., Washington, D. C.
Guest, Lester P., Medford, Mass.
Haenni, Edward O., Takoma Park
Hale, Joseph F., Big Clifty, Ky.
Hall, Ruth B. (Mrs.), College Heights
Hall Wallace LeR., Hyattsville
Hamlin, Kenneth E., Jr., Baltimore
Hammond, John C., Silver Spring
Hand, George E., Washington, D. C.
Haney, Walter J., Oregon, Ill.
Hardell, Nellie G. (Mrs.), Washington, D. C.
Harkins, Charles, Annapolis
Harrington, George E., Washington, D. C.
Harris, Elizabeth W., Lonaconing
Harrison, George K., Upper Marlboro
Harrison, Robert W., Wilmore, Ky.
Harvey, Philip C., Nashua, N. H.
Hayes, Earl T., Mullan, Idaho
Heim, John W., Upper Marlboro
Heinze, Peter H., Kahoka, Mo.
Henderson, Perlie deF., Takoma Park
Henry, Frances L., Washington, D. C.
Henson, Paul R., University Park
Herbst, Albert F., Westminster
Herring, Charles E., Pasadena P. O.
Hess, Carl W., Amana, Iowa
Heyman, Bernice, Baltimore
Highby, William I., University Park
Hill, Carl R., Washington, D. C.
Hipp, Norbert J., Washington, D. C.
Hitz, Chester W., Fortescue, Mo.

Hoadley, Alfred D., Hyattsville
Hodges, Leslie C., Warsaw, Va.
Hohing, Richard E., Frostburg
Holdstock, Henry B., Los Angeles, California
Hoover, John I., Altoona, Pa.
Hormats, Saul, Baltimore
Hoshall, Edward M., Baltimore
Howard, Addie J. (Mrs.), Hyattsville
Izsak, John A., Halethorpe
Jansen, Eugene F., Takoma Park
Jarowski, Charles, Baltimore
Jenkins, Eloise T. (Mrs.), Washington, D. C.
Jernigan, Grace, Washington, D. C.
Johns, B. Kathryn, Hyattsville
Johnson, Walter H., Washington, D. C.
Jones, Robert E., Springfield, Ohio
Kaminsky, Daniel, New York, N. Y.
Kane, Catherine M., Washington, D. C.
Kapiloff, Leonard, Baltimore
Katsura, Saburo, Washington, D. C.
Keene, Lester F., St. Petersburg, Fla.
Kelley, Carl W., Durham, N. C.
Kephart, Mary E., Taneytown
Kershner, Alan M., Emmitsburg
Kesler, Katherine E., Silver Spring
Ketcham, Harry L., Santa Rosa, Texas
Knowlton, John W., Bethesda
Kosar, William F., College Park
Kraemer, Leonard S., Baltimore
Kramer, Amihud, Baltimore
Kramer, Diana S. (Mrs.), Baltimore
Krasauskas, John W., Washington, D. C.
Kraybill, Herman F., Marietta, Pa.
Kremen, Simon, Annapolis
Kuhn, Albin O., Hyattsville
Kurtz, Floyd E., Washington, D. C.
Lakin, Hubert W., Silver Spring
Lander, John J., Buffalo, N. Y.
Lann, Joseph S., Washington, D. C.
Leed, Russell E., Denver, Pa.
Lehr, H. Franklin, Bethesda
Leinbach, Frederick H., College Park
Levin, Irvin, Baltimore
Libber, Theodore, Washington, D. C.
Linnig, Frederic J., Brooklyn, N. Y.
Littman, Louis, Clarendon, Va.
Livingston, Mabel S. (Mrs.), Takoma Park, D. C.
Longley, Raymond I., Jr., Storrs, Conn.
Love, Solomon, Washington, D. C.
Lundell, Ann C. (Mrs.), Washington, D. C.
Lynt, Richard K., Jr., Washington, D. C.
MacConomy, Edward N., Jr., St. Mary's City
Martin, Grace W. (Mrs.), Washington, D. C.
Massey, James B., Hampden-Sydney, Va.
Mather, Robert E., W. Lafayette, Ind.
Mayes, Irvin C., Timonium
McBee, Richard H., Eugene, Oreg.
McBrien, Frederick R., Toronto, Ont.
McCollum, Frank L., Jonesport, Me.
McNally, Edmund H., Washington, D. C.
Mehl, Joseph M., Jr., Washington, D. C.
Mehring, Arnon L., Jr., Greenbelt
Melchior, Donald F., Upper Marlboro
Metcalf, Helen B. (Mrs.), Forest Glen
Metcalf, Stephen E., Forest Glen
Miller, Earl E., Sublette, Kans.
Miller, Harry A., Washington, D. C.
Miller, Mary E., Baltimore
Miller, Roman R., Washington, D. C.
Miller, Thomas E., Washington, D. C.
Milliken, Julia W., (Mrs.), Silver Spring
Moore, Oscar K., Gainesville, Fla.
Mudd, Hester V., Pomfret
Muma, Martin H., Cumberland
Murphy, Celia E., Walkersville
Myers, Alfred T., Hyattsville
Nelson, Thorman A., Washington, D. C.
Neustadt, Morris H., Arlington, Va.
Newman, Marian A. (Mrs.), Washington, D. C.
Nolan, Edna P. (Mrs.), Mt. Rainier
Nolte, William A., Washington, D. C.
O'Dea, Katherine T., Honolulu, T. H.
O'Keefe, Bernice E., Rockville
Olsen, Marlow W., Beltsville
Opperman, Nancy R., Washington, D. C.
O'Rourke, Francis L., Glenn Dale
Outhouse, James B., Canandaigua, N. Y.
Parmele, Leslie P., Washington, D. C.
Paulhus, Norman G., Willimantic, Conn.
Peaslee, Joseph K., Washington, D. C.
Peers, Ada F. (Mrs.), Washington, D. C.
Perlmutter, Frank, Newark, N. J.
Peterson, Robert F., Washington, D. C.
Peterson, Selmer W., Blooming Prairie, Minn.
Pfeiffer, Paul E., Annapolis
Pierce, Elwood C., Warren, Ohio
Poole, Helen N. (Mrs.), Hagerstown
Posey, Walter B., Upper Marlboro
Potts, B. Sheba, Baltimore
Power, Wilson H., Lancaster, Pa.
Prickett, Hilda M. (Mrs.), Berwyn
Provenza, Dominic V., Catonsville
Pyles, William G., Gaithersburg
Quinn, Joseph P., Washington, D. C.
Radcliffe, William E., Upper Marlboro
Rairigh, William N., Ridgely
Ramsburg, Morris M., Beltsville
Raspet, August, Riverdale
Rauchschwalbe, Otto E., Silver Spring

Ravenburg, Ralph R., Edgewater
Rawley, Mary E., Hyattsville
Reid, James L., Catonsville
Reidy, Kathryn (Mrs.), Silver Spring
Reinhart, Frank W., Takoma Park
Reinhart, Frederick M., Takoma Park
Remington, Jesse A., Jr., Laurel
Rhodes, Harry C., Poolesville
Rich, Edith M., St. Louis, Mo.
Riggs, Lisette, Washington, D. C.
Robertson, Roy, Elkton
Robey, Carrie E., Laurel
Robey, Louise E., Washington, D. C.
Robinson, Harold B., Takoma Park
Roby, Maud F. (Mrs.), Riverdale
Rose, Frank W., Jr., Washington, D. C.
Rosen, Milton J., Brooklyn, N. Y.
Routson, Urith A., Uniontown
Rubin, Max, Woodcliff, N. J.
Sadle, Alexander, Washington, D. C.
Saylor, Zella P. (Mrs.), Hyattsville
Schechter, David O., Mt. Pleasant, Mich.
Schechter, Milton S., Brooklyn, N. Y.
Scholl, Walter, Washington, D. C.
Schutz, John L., Baton Rouge, La.
Schwab, Frank W., Washington, D. C.
Schweizer, Mark, Riverdale
Scott, Donald H., Washington, D. C.
Scott, Mary J., Hyattsville
Scribner, Bourdon F., Washington, D. C.
Secrest, John P., Brentwood
Seufferle, Charles H., Cincinnati, Ohio
Shapiro, Irving M., North Westchester, Conn.
Shay, Donald E., Lebanon, Pa.
Shear, Cornelius B., Vienna, Va.
Sheff, Joseph A., Annapolis
Shepherd, Boland B., Orrum, N. C.
Shewbridge, James T., Baltimore
Shupe, Irwin S., Baltimore
Shutak, Vladimir G., San Francisco, Calif.
Simpson, Vernon R., Baltimore
Singer, Louis, Washington, D. C.
Sisler, Fred D., Washington, D. C.
Skelton, Bessie K. W. (Mrs.), Hyattsville
Slavin, Morris, College Park
Smith, Frances E., Ashton
Smith, Gaylon B. (Mrs.), Berwyn
Smith, Harold W., Baltimore
Smith, Leonard, Washington, D. C.
Smith, Ruth P., (Mrs.), Silver Spring
Smithson, John R., Annapolis
Snyder, Roger W., Hagerstown
Speaker, Clare J. (Mrs.), Washington, D. C.
Specht, Alston W., Martinsburg, W. Va.
Sprague, Norman G., College Park
Stanton, William A., Hyattsville
Starkey, James H., Jr., Chevy Chase
Stephens, William A., Charlotte Hall
Stephenson, Richard B., Tyngsboro, Mass.
Stevenson, Frank V., Takoma Park
Stoddard, Carl K., Reno, Nev.
Stone, Marguerite M., Takoma Park
Streiff, Anton J., Washington, D. C.
Struble, John B., Washington, D. C.
Stuart, Leander S., Bethesda
Stull, William DeM., Madison, N. J.
Sussman, Bernard, Baltimore
Sweeney, Thomas R., Washington, D. C.
Swern, Daniel, Brooklyn, N. Y.
Swift, Harold M., Hyattsville
Temin, Samuel C., Washington, D. C.
Tepper, Albert E., Durham, N. H.
Terwilliger, William B., Baltimore
Thatcher, John S., Ithaca, New York
Tollefson, Richard, Aberdeen, S. Dak.
Tomlinson, Mary V., North East
Tornetta, Frank J., Norristown, Pa.
Tredick, Wendell S., Jr., Kensington
Turer, Jack, Arlington, Va.
Tuve, Richard L., Washington, D. C.
Valaer, Peter J., Washington, D. C.
VanMetre, Albert R., Pasadena
Voris, John B., Baltimore
Wagner, Thomas C. G., Washington, D. C.
Walker, Laurence H., Charlotte Hall
Walton, William W., Hyattsville
Waltz, George F., Washington, D. C.
Ward, Archibald F., Jr., Towson
Ward, James R., Gaithersburg
Warren, Minnie, Snow Hill
Watkins, Grace O. (Mrs.), University Park
Waugh, John G., Denver, Colo.
Wayne, Dorothy (Mrs.), Washington, D. C.
Webster, Carolyn I., Pylesville
Weinblatt, Mayer, Baltimore
Welsh, Llewellyn H., Washington, D. C.
Wester, Robert E., Berwyn
Wharton, Edward M., Mt. Rainier
Wheatley, Rosemary P., Hyattsville
White, Dorothy E., Bedford, Va.
Whiton, Alfred C., Brentwood
Wiedemer, Arthur P., Darien, Wis.
Willard, Daniel DeW., Cumberland
Williams, Charles S., Hyattsville
Williams, Edgar J., Charlotte Hall
Willingham, Patricia M., Hyattsville
Wilson, C. Merrick, Poolesville
Wilson, Robert H., Baltimore
Wingate, Phillip J., Wingate
Winkler, Fred B., Chevy Chase
Wintermoyer, John P., Hagerstown
Wise, Sarah E., Relay
Wiseman, Herbert G., Washington, D. C.
Wojtczuk, John A., Baltimore

Woodard, Geoffrey D. LeR., Hyattsville
Woodrow, Carroll C., Leonardtown
Woodworth, Robert N., Chapel Hill, N. C.
Wright, Margery W., Clarksburg, W. Va.
Wright, Rex E., Galesville
Wynn, Ruth A., Washington, D. C.
Yost, Henry E., Grantsville
Young, Edmond G., Baltimore
Young, Raymond M., Moosup, Conn.
Zenitz, Bernard L., Baltimore
Ziegaus, Warren, Hyattsville
Zimmerman, Marian A., Washington, D. C.
Zimmerman, Sterling E., Glen Burnie

COLLEGE OF HOME ECONOMICS

Senior Class

Abrahams, Henrietta T., East Orange, N. J.
Bernstein, Edith R. (Mrs.), Washington, D. C.
Bland, Mildred A., Washington, D. C.
Bohman, Katherine H., Hagerstown
Bullock, Evelyn A., Baltimore
Collison, Margaret, Takoma Park
Cramblitt, Mary Lee R., Cumberland
Curry, Tempe H., Bethesda
Davis, Barbara J., Chevy Chase
Dippel, Marie D., Baltimore
Dorsey, Margaret F., Baltimore
Enfield, Marjory L., Forest Hill
Fennell, Beatrice M., Chevy Chase
Ford, Margaret E., Millington
Fuchs, Sister Mary Ann, Maryknoll, N. Y.
Garonzik, Ruth, Baltimore
Grogan, Mariana, Washington, D. C.
Hickman, Martha V., Washington, D. C.
Hussong, Dorothy L., Washington, D. C.
Kraft, Jane L., Washington, D. C.
Kuhn, Eleanor M., Bethesda
Leighty, Lena L., Washington, D. C.
Logan, Mary A., Washington, D. C.
McComas, Lois C., Abingdon
McGinnis, Verneena, Indian Head
McRae, Gertrude E., Chevy Chase
Mullinix, Esther LaR., Woodbine
Repp, Florence J., Westernport
Richards, Bonnie M. (Mrs.), Mt. Rainier
Richmond, Ruth M., Bethesda
Rodgers, Helen, New Rochelle
Ross, Mary Lee, Cumberland
Sachs, Evelyn B., Baltimore
Samson, Catherine, Takoma Park
Schopmeyer, Grace E., Washington, D. C.
Sheild, Harriet E., Chevy Chase
Skinner, Barbara B., Silver Spring
Smaltz, Margarette H., Washington, D. C.
Soper, Ruby E., Washington, D. C.
Turner, Marie A. (Mrs.), Washington, D. C.
Wailes, Dorothea A., Baltimore
Wood, Margaret V., Washington, D. C.
Zimmerman, Mary E., Catonsville

Junior Class

Anderson, Muriel E., Washington, D. C.
Atkins, Sue S. (Mrs.), University Park
Bondareff, Helen E., Washington, D. C.
Boss, Emma L., Washington, D. C.
Brookens, Lillian E., Hyattsville
Buckler, Mary F., Aquasco
Burkins, Alice K., Castleton
Cook, M. Helen, Washington, D. C.
Davis, Dorothy M., Washington, D. C.
Downey, Milbrey A., Williamsport
Dunlap, Marguerite C., Washington, D. C.
Jones, Bernice, Takoma Park
Jones, Helen J. (Mrs.), Greenbelt
Lewis, L. Inez, Lantz
Lung, Mary E., Smithsburg
Lyon, Elnora L., Baltimore
McCarron, Catherine H., Washington, D. C.
Medbery, Dorothy A., Washington, D. C.
Mike, Emma M., Washington, D. C.
Miller, Marjorie L., Ft. Monroe, Va.
Nellis, Dorothy A., Takoma Park
Owens, Elizabeth W., Linthicum Heights
Pierce, Patricia M., Takoma Park, D. C.
Powers, M. Elizabeth, Hyattsville
Reynolds, Daphne, Washington, D. C.
Santamarie, Jeanne M., Rosemont, Pa.
Schutrumpf, Doris E., Washington, D. C.
Seiter, Margaret E., Govans
Skidmore, Mary A., College Park
Stephenson, Elizabeth, Mt. Lake Park
Stevenson, Bernice, Takoma Park
Tomberlin, Isabelle I., Hyattsville
Upson, Eileen, Towson
Vorkoeper, Marcia M., Washington, D. C.
Wegman, Ruth R., Baltimore
Weil, Margaret, Alexandria, Va.
Williams, Helen E., Randallstown
Wright, Helen L., Clovis, N. Mex.

Sophomore Class

Allen, Marjorie L., Ritchie
Aronson, Esther M., Cumberland
Bedell, Helen I., Washington, D. C.
Bryan, Helen M., Chevy Chase
Callander, Mary H., Washington, D. C.
Cary, Clara F., Washington, D. C.
Clements, Doris M., Washington, D. C.
Coe, Adelaide E., Washington, D. C.
Cole, Mary E., Washington, D. C.
Cornnell, Norma L., Washington, D. C.
Cramblitt, Maxine T., Cumberland
Dashiell, Rebecca R., Cambridge
Davidson, Mary J., Washington, D. C.
Dorsey, Alberta R., Crisfield
Dunbar, Ruth M., Little Valley, New York
Ellis, Erin, Washington, D. C.
Fisk, Alice K., Washington, D. C.
Fulton, Elizabeth C., Bowie
Funk, M. Elizabeth, Hagerstown
Gordon, Muriel, Washington, D. C.
Graves, Mary L., Kensington
Griffith, Mary A., Silver Spring
Gurney, I. Elaine, Silver Spring
Gusack, Sue G., Washington, D. C.
Halstead, Jessie W., Washington, D. C.
Hambleton, Edwina, Washington, D. C.
Hastings, Laura F., Kensington
Hess, Marguerite R., Washington, D. C.
Holbrook, Helen P., College Park
Hubel, Shirley C., College Park
Jenkins, Eleanor E., Stewartstown, Pa.
Jones, Claudia H., Washington, D. C.
Ladd, Louise B., Chevy Chase
Likely, Dorothy E., Savage
Lillie, Margaret A., Bethesda
Loar, Margaret T., Rawlings
Loomis, Marian, Washington, D. C.
Lutzer, Ellen, Floral Park, N. Y.
Marks, Agnes L., Lansdowne
Marshall, Earla B., Hyattsville
McFarland, Doris H., Cumberland
Melton, Mildred M., S. Norfolk, Va.
Moore, Maryan G., Washington, D. C.
Mumma, Elizabeth M., Hagerstown
Myrick, Betsy A., Silver Spring
Newmaker, Phyllis J., Brentwood
Page, Jane E., Accokeek
Park, Mary L., Wayne, Pa.
Patterson, Ellen F., Elkridge
Rainalter, Martha L., Cumberland
Remsburg, Carol, Middletown
Rosenbusch, Frances S., Washington, D. C.
Ruoff, Ethel L., Washington, D. C.
Simpson, L. Mable, Frederick
Staley, Elma L., Rhinebeck, N. Y.
Sullivan, Betty L., Washington, D. C.
Teller, M. Louise, Chevy Chase
Thomas, Elaine M., Mt. Rainier
Thompson, Ruth L., Cumberland
Todd, Frances M., Laurel
Trundle, Catharine M., Frederick
Tydings, Elizabeth L., Washington, D. C.
Vaiden, Mary V., Baltimore
Watson, Evelyn N., Brandywine
Webb, Mary E., Mt. Airy
Werth, Dorothy, Washington, D. C.
Westfall, Jean E., Hyattsville
White, Helen G., Washington, D. C.

Freshman Class

Albers, Catherine M., Jessup
Anderson, Dorthy V., Catonsville
Anderson, Jane P., Bay Ridge
Atwood, Margaret C., Ft. Leavenworth, Kans.
Bateman, Eleanor M., Baltimore
Beck, Marian L., Washington, D. C.
Bell, Mary J., Hyattsville
Bennett, Shirley L., Laurel
Bentz, Alice R., Boonsboro
Bohanan, Mary M., Catonsville
Briggs, Ruth L., Gaithersburg
Brinson, Dorothy M., Brentwood
Burke, Elizabeth M., Hyattsville
Burner, Betty, Washington, D. C.
Cafferty, Joyce A., Washington, D. C.
Carlson, Frances A., North East
Carr, Eileen B., Jessups
Carter, Eileen W., Washington, D. C.
Chapin, Jane A., Washington, D. C.
Cissel, Anne E., Sandy Spring
Clayton, Thelma J., Bethesda
Collings, Janice, Bethesda
Cook, Marjorie L., University Park
Coulliette, Ralston, Washington, D. C.
Cushing, Susan B., Chevy Chase
Davis, Lois R., Washington, D. C.
Dawson, Mary J., Washington, D. C.
Demaree, Frances E., College Park
Dietzman, Carol H., Riverdale
Ditzel, Virginia H., Halethorpe
Donahue, Elizabeth J., Washington, D. C.
Dubb, Ruth, Baltimore
Duff, Avis D., Chevy Chase
Dunberg, Frances J., Passaic, N. J.
Edelblut, Grace V., Silver Spring
Enfield, Mary V., Forest Hill
England, Barbara R., Arlington, Va.
Erickson, Audrey L., Washington, D. C.
Fike, Betty L., Richmond, Va.

Foerster, Evelyn M., Washington, D. C.
Freeman, Anna R., Galena
Friedman, Blanche, Washington, D. C.
Frothingham, Jean T., Hyattsville
Garlock, Sue M., Chevy Chase
Gilbert, Betty L., Washington, D. C.
Gisriel, Beulah M., Elkridge
Graham, Betty M., Baltimore
Gulick, Esther M., Chevy Chase
Haase, Elizabeth S., Baltimore
Haislip, Dorothy H., Washington, D. C.
Harris, Mary D., Bel Air
Hart, Doris J., Washington, D. C.
Holland, Lois H., Silver Spring
Huff, Eleanor G., Chevy Chase
Hutchinson, Virginia J., Takoma Park
Jaggers, Miriam E., Washington, D. C.
Jones, Bettie M., Washington, D. C.
Jones, Louise A., Takoma Park, D. C.
Jope, Nellie M., Washington, D. C.
Julia, Nancy P., Bethesda
Kahn, Elaine J., Washington, D. C.
Kellermann, Mary J., College Park
Kepner, Velma J., Chevy Chase
Kline, Evelyn E., Columbia, S. C.
Lamb, Nellie, Chevy Chase
Landbeck, Shirley J., Baltimore
Lane, Mary E., College Park
Lawrence, Edythe M., Edgewater
Lee, Mary C., Landover
Lehmann, Ruth I., Baltimore
Lowe, Carlyn B., Stewartstown, Pa.
MacKay, Shirley, Washington, D. C.
Magruder, Margaret J., Silver Spring
Maier, Marie K., University Park
Martin, Mary C., Hagerstown
Mason, Marilyn G., Queen Anne
McDaniel, Helen L., Jarrettsville
Mednick, Miriam R., Norfolk, Va.
Meng, Caroline T., Washington, D. C.
Miskelly, Dorothy J., Washington, D. C.
Mitchell, Betty B., Chevy Chase
Mitchell, Mary V., Bethesda
Notz, Ellen C., Washington, D. C.
Owen, Jeannette, Chevy Chase
Peabody, Mary E., Washington, D. C.
Perlstein, Sylvia, Washington, D. C.
Persons, Jean M., Washington, D. C.
Phillips, Nancy J., Hyattsville
Pifer, Rosaleen B., Silver Spring
Pitts, Dorris E., Chevy Chase
Rawlings, Martha E., Westwood
Rian, Louisa A., Brentwood
Richmond, Frances A., Bethesda
Ritchie, Catherine M., Washington, D. C.
Rolph, Katherine L., Greenbelt
Romero, Betty R., Crownsville
Rundles, Dorothy A., Washington, D. C.
Sargent, Marion F., Batavia, N. Y.
Scher, Irene J., Washington, D. C.
Shapiro, Beverly S., Washington, D. C.
Shpritz, Geraldine R., Baltimore
Skipton, Lisbeth J., Mt. Rainier
Snyder, Lillian H., Laurel
Stauber, Lora M., Hyattsville
Steely, Betty G., College Park
Stevenson, Mary H., University Park
Thompson, Doris M., Catonsville
Tiffany, Tommie S., Edgewood Arsenal
Volland, Jean B., Washington, D. C.
Volland, Ruth M., Hyattsville
Warmack, Marion L., Washington, D. C.
Warthen, Charlotte E., Washington, D. C.
Wathen, Roberta M., Hyattsville
Way, Miriam L., Havre de Grace
Wilbor, Florence E., Williamson, N. Y.
Wood, Doris A., Washington, D. C.
Wood, Elizabeth J., Washington, D. C.
Wright, Millicent E., Laurel
Young, Anne L., Washington Grove

Part Time

Bafford, Mena E. (Mrs.), College Park
Mowatt, Nancy M., College Park
Regan, Ethel M., Mt. Rainier
Turner, Edythe M., Rockville

Unclassified

Cashin, Sister Mary Helen, Maryknoll, N. Y.
Codier, Ruth G. (Mrs.), Takoma Park
Dixon, Margaret A., Brunswick
Maxson, Jane, Cranford, N. J.

SCHOOL OF LAW

Fourth Year Evening Class

Bussey, Eugene, Baltimore
Care, Harold C., Baltimore
Cox, Charles H., Baltimore
Douglass, Calvin A., Baltimore
Hedrick, Thomas H., Baltimore
Herrmann, John O., Baltimore
Hordes, Sanford, Washington, D. C.
Howell, George E., Baltimore

Howell, Joseph F., Baltimore
Johnson, Clarence L., Annapolis
Ottenheimer, Edwin, Baltimore
Paymer, Leonard, Baltimore
Plant, Albin J., Baltimore
Rechner, Charles F., Jr., Baltimore
Robertson, Emma S., Baltimore
Saks, Jay B., Baltimore
Sallow, William H., Baltimore
Thompson, Charles A., Hurlock
Watchorn, Arthur W., Millbury, Mass.
Woods, Alfred, Plant City, Fla.
Yeager, Paul J., Baltimore
Zimmerman, Richard E., Frederick

Third Year Day Class

Bailey, Warren L., Baltimore
Berry, Thomas N., Cumberland
Bichy, Charles E., Jr., Baltimore
Bogdanow, Morris, Jersey City, N. J.
Brennan, John J., Baltimore
Brockman, E. Louise, Takoma Park
Brown, Forrest W., Charlestown, W. Va.
Bruce, Robert M., Cumberland
Caplan, David L., Baltimore
Connor, John S., Jr., Catonsville
Farinholt, Leroy W., Baltimore
Fey, John T., Cumberland
Fowler, Charles R., Washington, D. C.
Holmes, Jesse W., Jr., Cumberland
Kaplan, Solomon, Baltimore
Lankford, Richard E., Baltimore
Maguire, John N., Pennsgrove, N. J.
Mason, Everett P., Jr., Baltimore
Polack, Samuel J., Hagerstown
Ricciuti, Hugo A., Baltimore
Scrivener, David S., Washington, D. C.
Shiling, Reuben, Baltimore
Sweeny, James B., Jr., Baltimore
Taylor, B. Conway, Jr., Baltimore
Thomas, Calvert, Baltimore
Treacy, James J., Oakland
Virts, Charles C., Frederick

Third Year Evening Class

Alter, Irving D., Baltimore
Atwater, Charles C. W., Chestertown
Barbour, Robert T., Rock Point
Barnard, John D., Baltimore
Brown, Augustus F., 3rd, Havre de Grace
Cory, Ernest N., Jr., College Park
Evans, Matthew S., Severna Park
Glickman, Max, Annapolis
Hebb, John S., 3rd, Baltimore
Hendrickson, Charles J., Halethorpe
Huff, James K., Jr., Baltimore
Kelly, Charles E., Forest Hill
Light, Abraham, Baltimore
Mahoney, Elmer J., Greenbelt
Martin, Darwin B., Mt. Lake Park
McClure, Kenneth F., Baltimore
McComas, Charles H., Bel Air
Mohlhenrich, William W., Catonsville
O'Donnell, William J., Baltimore
Posner, Louis, Baltimore
Purrington, Sara, Baltimore
Rasin, George B., Jr., Worton
Rhodes, Fred B., Jr., Baltimore
Skeen, John Henry, Jr., Baltimore
Smith, Marvin H., Federalsburg
Umbarger, Paul, Bel Air
Wenchel, John P., 2nd, Washington, D. C.
Wilkinson, Herbert A., Baltimore

Second Year Day Class

Bast, George C., Baltimore
Bowman, John D., Rockville
Brenner, Richard B., Baltimore
Broadwater, Norman I., Oakland
Clark, Edward T., Jr., Ellicott City
Cole, William H., Towson
Duvall, Charles O., Annapolis
Fales, Merton S., Jr., Baltimore
Fox, John Brockenborough, Baltimore
Ghingher, John J., Jr., Baltimore
Goldman, Robert M., Baltimore
Insley, Thomas I., Jr., North East
Kassirer, Earle L., Buffalo, N. Y.
Kempton, William B., Baltimore
Kraus, Anthony W., Jr., Baltimore
Laws, Victor H., Parsonsburg
Maginnis, James B., Baltimore
Martin, Richard, Baltimore
Maulsby, William E. H., Baltimore
Monk, Carl, Baltimore
Perdue, Herman E., Parsonsburg
Peters, F. Leroy, Baltimore
Raine, John E., Jr., Towson
Rosenberg, Morton P., Baltimore
Russell, B. Royce, Baltimore
Schenker, Samuel, Annapolis
Timanus, Hall E., Baltimore
Vincenti, Bernard C., Baltimore
Waingold, George, Cumberland
Wright, W. A. Stewart, Denton

Second Year Evening Class

Bishop, John O., Pasadena
Bratton, William W., Perryville
Brumbaugh, Chalmers S., Jr., Baltimore
Close, Albert P., Bel Air
Cohen, Daniel, Baltimore
Cohen, Herbert L., Baltimore
Coonan, Margaret E., Baltimore
Fisher, Charles O., Westminster
Frisco, William P., Dundalk
Gehring, Edwin A., Baltimore
Grady, Joseph H., Baltimore
Grubbs, Harry L., Jr., Baltimore
Hammond, Frank L., Baltimore
Harris, Frances N., Baltimore
Ivrey, Samuel M., Annapolis
Kahl, Gordon K., Baltimore
Kolker, Marvin D., Baltimore
Lanahan, William J., Baltimore
Little, William J., Baltimore
Mahoney, William W., Baltimore
McGreevy, Philip A., Baltimore
Miller, Homer L., Baltimore
Niemoeller, Joseph V., Baltimore
Page, Maurice J., Derby, Vt.
Reddy, Edward B., Baltimore
Richardson, Vaughn E., Willards
Russell, Archibald L., Baltimore
Saul, Milton H. F., Baltimore
Scarborough, J. Gifford, Elkton
Skeen, William A., Baltimore
Whaley, Mary H., Baltimore
Wilson, Meredith M., White Hall

First Year Day Class

Barroll, Lewin W., Jr., Baltimore
Benjamin, Albert E., Baltimore
Bierman, John F., Baltimore
Blucher, John H., Baltimore
Bowen, Ralph C., Jr., Cumberland
Brown, John H., Jr., San Juan, Puerto Rico
Brown, John W., Jr., Bethesda
Bushong, Jacquelin H., Breathedsville
Cannon, Robert E. P., Salisbury
Carrico, Thomas C., Bryantown
Carter, Clayton C., Centreville
Case, Richard W., Berwyn
Clark, John T., Jr., Greensboro
Feld, Benjamin N., Baltimore
Flanigan, William P., Baltimore
Gerardino, Alberto J., Ponce, Puerto Rico
Goldstein, Morton S., Baltimore
Gorman, William H., II, Baltimore
Gray, Thomas C., Jr., Chase
Hicks, Harry J., Jr., Towson
Ichniowski, William M., Baltimore
LaNeve, Evelyn M., Cumberland
List, Leroy H., Baltimore
Macmillan, William D., Jr., Baltimore
Mandell, Marvin, Baltimore
McSherry, William C., Frederick
Murphy, William H., Baltimore
Oswald, William B., Relay
Owings, Noble L., Riverdale
Prescott, Stedman, Jr., Rockville
Prettyman, Dan T., Trappe
Rosen, Bernard L., Baltimore
Royster, John R., Evansville, Ind.
Simmons, Peter T., Newport, R. I.
Sindler, Millard S., Baltimore
Smith, John L., Jr., Baltimore
Solomon, Harold, Baltimore
Somerville, William B., Cumberland
Tarantino, Arthur E., Hyattsville
Toula, Wilson R., Baltimore

First Year Evening Class

Alperstein, Reuben R., Baltimore
Applefeld, LeRoy S., Baltimore
Baldwin, John S., Hydes
Bortner, William A., Baltimore
Brown, Charles A., Severna Park
Brown, Sara A., Baltimore
Buck, Frederick R., Baltimore
Butschky, Wilfred W., Baltimore
Clifford, J. Lawrence, Baltimore
Connor, Charles M., Catonsville
Cronie, Evelyn L., Baltimore
Dawbarn, Waring L., Baltimore
Disney, Peter W. L., Baltimore
Eckhardt, Earl S., Baltimore
Eierman, George H. P., Baltimore
Gallop, Millard, Halethorpe
Gardner, William L., Jessups
Himmelfarb, Anna, Baltimore
Holtzner, Francis J., Fullerton
Kerger, Francis P., Catonsville
Lally, Edward B., Baltimore
Mackie, Osborne S., Elkton
Martin, Eugene P., Jr., Ellicott City
Matricciani, Albert J., Baltimore
McClees, J. Sheridan, Jr., Baltimore
McLeod, George R., Pasadena
Muller, Augustine J., Kingsville
Murphy, Cyril R., Jr., Baltimore
Norris, Louis G., Sykesville
Raphel, Eugene V., Cumberland

Reed, Charles H., Jr., Bel Air
Rugemer, Francis E., Baltimore
Sfekas, James S., Baltimore
Silber, Samuel L., Baltimore
Stevens, George R., Baltimore
Stone, John T., Ferndale
Taymans, Bernard, Baltimore
Teague, Thomas S., Baltimore
Thompson, Martin A., Baltimore
Watson, George B., Towson
White, Frederick W., Towson
Wildman, Lewis M., Mt. Lake Park
Zebelean, John P., Jr., Catonsville

Unclassified Evening

Buppert, Doran H., Baltimore
Hopkins, John H., IV, Baltimore
Killingsworth, Frederic K., Pikesville
Sproat, Mary E., Rochester, N. Y.
Tillman, David F., Baltimore
Weir, Albert E., Baltimore

Unclassified Day

Bloodgood, Joseph H., Baltimore
Hall, Eunice Mae, Baltimore
Heringman, Leo A., Baltimore
Mattingly, Joseph A., Leonardtown
McColgan, James E., Catonsville

SCHOOL OF MEDICINE

Senior Class

Algire, Glenn H., Baltimore
Andrews, S. Ralph, Jr., Elkton
Arney, William C., Morganton, N. C.
Baier, John C., Baltimore
Bailey, Walter L., York, Pa.
Barker, Daniel C., Niantic, Conn.
Beacham, Edmund G., Baltimore
Biehl, Harold P., Frederick
Borden, Jesse N., Baltimore
Brinsfield, Irving C., Vienna
Caplan, Lester H., Baltimore
Chandler, Weldon P., Asheville, N. C.
Clifford, Robert H., Jr., Mountain Lakes, N. J.
Cole, John T., Warren, Ohio
Correll, Paul H., Catonsville
Daniel, Louie S., Oxford, N. C.
Daue, Edwin O., Jr., Silver Spring
Deluca, Joseph, Bristol, R. I.
Dent, Charles F., Morgantown, W. Va.
DonDiego, Leonard V., Brooklyn, N. Y.
Duffy, William C., Perryman
Dwyer, James R., Renovo, Pa.
Freeman, James A., Jr., West Union,W.Va.
Fusting, William H., Baltimore
Gassaway, William F., Ellicott City
Gibbs, Robert L., Hickory, N. C.
Glick, Irving J., New York, N. Y.
Graham, Walter R., Charlotte, N. C.
Guzman-Lopez, Luis R., San Juan, Puerto Rico
Hecht, Morton, Jr., Baltimore
Henning, Emil H., Baltimore
Heyman, Albert, Baltimore
Hooton, Elizabeth L., University Park
Hope, Daniel, Jr., Ellicott City
Igartua-Cardona, Susana, Aguadilla, Puerto Rico
Inloes, Benjamin H., Jr., Baltimore
Jamison, William P., Clarksburg, W. Va.
Jorgensen, Cecil L., Salt Lake City, Utah
Karns, James R., Baltimore
Kirchick, Julian G., Brooklyn, N. Y.
Kohn, Schuyler G., Baltimore
Krieg, Edward F., Baltimore
Kurland, Albert A., Baltimore
Lartz, Robert E., Sharon, Pa.
Ling, William S. M., New York, N. Y.
Livingood, William C., Waynesburg, Pa.
Loker, Frank F., Leonardtown
Maccubbin, Harry P., Baltimore
Markline, Simeon V., White Hall
Martin, Clarence W., Baltimore
Maryanov, Alfred R., New York, N. Y.
Mathers, Daniel H., Annapolis
McCann, Harold F., Clarksburg, W. Va.
McClung, James E., Richwood, W. Va.
McClung, William D., Richwood, W. Va.
McDaniel, George C., Baltimore
McKinnon, William J., Maxton, N. C.
Meade, Forest C., Hyattsville
Miceli, Joseph, Baltimore
Molz, Edward L., Baltimore
Murphy, Fred E., Jesup, Ga.
Muse, William T., Baltimore
Myers, George R., Hurlock
O'Hara, James F., Canton, Ohio
Picó, Guillermo, Santurce, Puerto Rico
Pierpont, Ross Z., Woodlawn
Pigford, Robert T., Wilmington, N. C.
Platt, William, Baltimore
Pollock, Arthur E., Gallitzin, Pa.

Posner, Leonard, Brooklyn, N. Y.
Pound, John C., Baltimore
Rhode, Charles M., Baltimore
Richter, Conrad L., Baltimore
Robinson, Raymond C. V., Baltimore
Roop, Donald J., New Market
Rothschild, Carl E., Chefoo, China
Russell, Thomas E., Jr., Frederick
Russillo, Philip J., Norwich, Conn.
Schlesinger, George G., New York, N. Y.
Sloan, Joseph W., Bayonne, N. J.
Smith, James B., Glen Burnie
Smith, Ruby A., Princeton, W. Va.
Squillante, Orlando J., Warren, R. I.
Stayton, Howard N., Jr., Wilmington, Del.
Supik, William J., Baltimore
Tankin, Louis H., Baltimore
Thompson, Alexander F., Troy, N. C.
Tompakov, Samuel, Baltimore
Townshend, Wilfred H., Jr., Baltimore
Trevor, William, Baltimore
Triplett, William C., St. Marys, W. Va.
Waite, Merton T., Odenton
Weeks, William E., Elizabeth City, N. C.
Wilkins, Jesse L., Pocomoke City
Williams, Herman J., Reading, Pa.
Williams, Richard T., Crownsville
Wilson, Harry T., Jr., Baltimore
Wolff, William I., New York, N. Y.
Wright, James R., Raleigh, N. C.
Zinkin, Solomon B., Lakewood, N. J.

Junior Class

Alberti, Aurora F., Brooklyn, N. Y.
Alexander, Fred, Ridgewood, N. J.
Arnett, Jerome C., Eglon, W. Va.
Barnett, Charles P., Baltimore
Baxley, Joshua W., 3rd, Ellicott City
Bowen, Joseph J., Waterbury, Conn.
Brooks, Julius C., Jr., Chattanooga, Tenn.
Bundick, William R., Baltimore
Carter, John M., Mt. Hope, W. Va.
Checket, Pierson M., Baltimore
Chiqués, Carlos M., Caguas, Puerto Rico
Cloninger, Charles E., Claremont, N. C.
Conlen, Richard A., Audubon, N. J.
Cooper, LeRoy G., Glen Lyon, Pa.
Crecca, Joseph V., Newark, N. J.
Croce, Gene A., Providence, R. I.
Cruikshank, Dwight P., 4th, Lumberport, W. Va.
Culler, John M., Frederick
DeVincentis, Michael L., Baltimore
Diez-Gutierrez, Emilio, Orocovis, Puerto Rico
DiPaula, Anthony F., Baltimore
Esnard, John E., Los Angeles, Calif.
Evola, Camille M., Flushing, L. I., New York
Frey, Edward L., Jr., Catonsville
Garcia-Blanco, Jose P., Ponce, Puerto Rico
Gelber, Julius, New York, N. Y.
Goodman, William, Baltimore
Graziano, Theodore J., Baltimore
Hedrick, Thomas A., Beckley, W. Va.
Hershner, Newton W., Jr., Mechanicsburg, Pa.
Hollander, Asher, Baltimore
Huffman, Pearl T., Morganton, N. C.
Hunter, James S., Jr., Frostburg
Jaffe, Vita R., Brooklyn, N. Y.
Kemp, Norval F., Relay
Krulevitz, Keaciel K., Baltimore
Lach, Frank E., Perth Amboy, N. J.
Leslie, Franklin E., Towson
Levinson, Lorman L., Baltimore
Licha, José S., Santurce, Puerto Rico
Lowe, William C., Stevensville
Lusby, Thomas F., II, Prince Frederick
Malouf, Raymond N., Richfield, Utah
Mandel, Jacob B., Jersey City, N. J.
Mitchell, William A., Baltimore
Molinari, José G., Santurce, Puerto Rico
Morgan, Margaret, Austin, Ind.
Morris, Felix R., Bridgeport, Conn.
Morrison, William H., Baltimore
Nolan, James J., Catonsville
Novoa-Caballero, Miguel, Rio Piedras, P. R.
Ortiz, Idalia O., Santurce, P. R.
Palmer, M. Virginia, Easton
Pasamanick, Benjamin, Brooklyn, N. Y.
Pearcy, Thompson, Parkersburg, W. Va.
Perman, Joshua M., Baltimore
Phrydas, Irene, Greensboro, N. C.
Pruitt, Charles E., Frederick
Renna, Francis S., Montclair, N. J.
Revell, Walter J., Louisville, Ga.
Richardson, Charles, Jr., Bel Air
Richmond, Marion B., Chevy Chase
Richter, Christian F., Jr., Overlea
Rosenberg, Jonas S., New York, N. Y.
Rossberg, Clyde A., Baltimore
Sasscer, Robert B., Upper Marlboro
Sawyer, William H., Raleigh, N. C.
Scholl, John A., Wheeling, W. Va.
Schwartz, Stanley E., Brooklyn, N. Y.
Seigman, Edwin L., Jr., Baltimore
Shannon, Edward P., Jr., Brooklyn, N. Y.
Sheehan, Joseph C., Baltimore
Sherrill, Elizabeth B., Sparks
Sims, Thomas C., Fayetteville, W. Va.
Skitarelic, Benedict, Wheeling, W. Va.
Spencer, Tracy N., Jr., Concord, N. C.

Spinnler, Henry R., Butler, N. J.
Stevens, John S., Bridgeport, Conn.
Strayer, Webster M., Jr., Baltimore
Thompson, Raymond K., Riverdale
Trevaskis, Richard W., Jr., Cumberland
Ulrich, George J., Baltimore
Virusky, Edmund J., Freeland, Pa.
Walker, James H., Charleston, W. Va.
Wall, Lester A., Jr., Baltimore
Watkins, Dayton O., Hyattsville
Wells, John B., Jr., Baltimore
Wilder, Thomas C., Rochester, Minn.
Wilson, Edwin F., New York, N. Y.
Yanagisawa, Kazuo, Berkeley, Calif.
Young, John D., Jr., Westminster
Zierler, Kenneth, Baltimore

Sophomore Class

Adam, Alberto L., San Juan, Puerto Rico
Ahroon, William A., Baltimore
Bacharach, David N., Jr., Baltimore
Barthel, Robert A., Jr., Catonsville
Bassan, Morton E., Baltimore
Bennett, Van Boring, Burnsville, N. C.
Bird, Joseph G., Baltimore
Bowen, Francis D. T., Cumberland
Brodsky, Alexander E., Baltimore
Byerly, William L., Hartsville, S. C.
Carey, Richard A., Baltimore
Coffman, Harry F., II., Keyser, W. Va.
Concilus, Frank, Uniontown, Pa.
Cox, Matthew M., Sparrows Point
Crane, Warren E., Loch Arbour, N. J.
Davies, Thomas E., Blossburg, Pa.
Dávila-López, José G., Guaynabo, P. R.
Davis, John R., Jr., Weston, W. Va.
Day, Newland E., Baltimore
Dillinger, Karl A., Weston, W. Va.
Fallin, Herbert K., Linthicum Heights
File, Richard C., Decatur, Ill.
Franz, John H., Baltimore
Friedman, Marion, Baltimore
Fuertes, José R., Santurce, P. R.
Furnari, Joseph C., Johnstown, Pa.
Goldsmith, Jewett, Baltimore
Gramse, Arthur E., Holyoke, Mass.
Greer, Margaret A., Bel Air
Gregory, Exie M., Clarksburg, W. Va.
Hamburger, Morton L., Baltimore
Hubbard, Prevost, Jr., White Plains, N. Y.
Ingram, Albert L., Jr., Wilmington, Del.
Irwin, Robert C., Lyndhurst, N. J.
Jones, Everett D., Westminster
Kardash, Theodore, Baltimore
Keeley, Joseph F., Jr., Bridgeport, Conn.
Kenyon, Harold A., East Falmouth, Mass.
Kiefer, Robert A., Catonsville
Klijanowicz, Stanley B., Baltimore
Koleshko, Lawrence J., Waterbury, Conn.
Krepp, Martin W., Jr., Baltimore
Kroll, John G., Mt. Carmel, Pa.
Kundahl, Paul C., Germantown
Link, Etta C., Halethorpe
Longwell, Robert H., Tyrone, Pa.
Lowitz, Irving R., Baltimore
Lyons, Mary L., Steubenville, Ohio
Manganiello, Louis O., Waterbury, Conn.
Marino, Frank S., Middletown, Conn.
Matthews, Henry S., Rose Hill, N. C.
Mazer, Robert, Baltimore
McCosh, James N., Jr., Ruxton
McGoogan, Malcolm T., Fitzgerald, Ga.
Meli, John J., Charleroi, Pa.
Miller, Edgar A., Jr., Gettysburg, Pa.
Moses, Robert A., Baltimore
Mullins, George R., Logan, W. Va.
Orafino, Caesar F., North Pelham, N. Y.
Osborne, John C., Baltimore
Phelan, Patrick C., Jr., Baltimore
Phillips, Otto C., Baltimore
Posey, Dale M., Christiana, Pa.
Ritchings, Edward P., Annapolis
Rosin, John D., Silver Spring
Rousos, Anthony P., Rochester, N. Y.
Sadler, Henry H., Jr., Annapolis
Sadowsky, Wallace H., North East
Sborofsky, Isadore, Baltimore
Scott, Joseph W., Live Oak, Fla.
Shipley, Edgar R., Baltimore
Shub, Maurice I., Baltimore
Shuman, Louis H., Scotland
Stegmaier, James G., Cumberland
Summa, Andrew J., Syracuse, N. Y.
Townsend, Francis J., Ocean City
Traynor, Francis W., Cumberland
Van Lill, Stephen J., III, Catonsville
Wallace, Joseph, Jr., Stroudsburg, Pa.
Ward, Charles M., Beckley, W. Va.
Williams, Charles H., Owings Mills
Williamson, Edgar P., Jr., Catonsville
Zimmerman, Loy M., Baltimore

Freshman Class

Allsopp, Richard C., Houston, Pa.
Almódovar, Ramón I., San German, Puerto Rico
Baker, Emory F., Spokane, Wash.
Barnes, John D., New Bedford, Mass.
Beall, William L., Grafton, W. Va.
Bowen, Charles V., Jr., Centreville
Brennan, Thomas J., Baltimore

Brooks, Ralph K., Moorefield, W. Va.
Brooks, Ross C., Baltimore
Bryson, William J., Baltimore
Chenowith, Ralph S., Baltimore
Cohen, Harry, Baltimore
Coughlin, John B., Athens, Pa.
Courtney, Donald L., The Dalles, Oregon
Crastnopol, Philip, Newark, N. J.
Cusani, Benedict A., Miami, Fla.
Dalmáu, Miguel S., Santurce, Puerto Rico
Davis, William J. G., Washington, D. C.
Deegan, Robert T., Massillon, Ohio
DeRosa, Hugo A., Tenafly, N. J.
Diorio, John D., Waterbury, Conn.
Dippel, Francis X., Baltimore
Dunne, Thomas B., Stapleton, N. Y.
Epperson, John W. W., Baltimore
Fowler, Richard L., Greensboro, N. C.
French, Samuel L., Rumbler
Friedman, Paul N., Baltimore
Garrison, Alfred S., Monkton
Giglia, Tony R., Jr., Glen Jean, W. Va.
Grave de Peralta, José I., Camaguey, Cuba
Gray, David B., Rainelle, W. Va.
Hagan, William B., Allen
Hassler, Frank S., Harrisburg, Pa.
Haydu, Joseph F., Omar, W. Va.
Honigman, Alvin H., Baltimore
Hutson, Paul G., Baltimore
Koleshko, William N., Irvington, N. J.
Lacher, George M., Baltimore
LaMar, Robert C., Hagerstown
Lewis, Richard Q., Annapolis
Livingstone, Robert C., Clarksburg, W. Va.
Lukats, Paul G., Barberton, Ohio
MacDonald, Charles R., Cumberland
Mace, Carville V., Jr., Stemmers Run
Matchar, Joseph C., Baltimore
McMillan, Marcy E., Clarksburg, W. Va.
Mele, Vincent J., Jr., South Orange, N. J.
Méndez, Néstor H., Santurce, Puerto Rico
Miller, James D., Columbus, Ohio
Minervini, Robert V., Yonkers, N. Y.
Musnick, Henry, Baltimore
Myers, Joseph C., Woodlawn
Nash, Kenneth P., Glendale, Calif.
Neff, Charles A., Chicago, Ill.
Parés, Maria A., Manati, Puerto Rico
Peréz, Enrigue, Santurce, Puerto Rico
Peterson, Preston H., Salt Lake City, Utah
Queen, J. Emmett, Baltimore
Rangle, Raymond V., Baltimore
Renshaw, Josephine E., Baltimore
Richards, Granville H., Port Deposit
Robbins, Martin A., Baltimore
Rosenstein, Louis N., Baltimore
Royer, Earl L., Woodlawn
Rude, Richard S., Rutherford, N. J.
Sacks, Seymour, Baltimore
Samuels, Irving L., Baltimore
Sharp, Nathaniel, Woodlawn
Sigler, John W., Chillicothe, Ohio
Soler, Marta E., Yauco, Puerto Rico
Spier, Andrew A., Cumberland
Stafford, Harold, Detroit, Mich.
Stewart, Edwin H., Jr., Baltimore
Stier, Howard W., Passaic, N. J.
Stoner, James E., Jr., Woodsboro
Taylor, Irvin J., Ellicott City
Tilt, LeRoy W., Baltimore
Torres, José M., San Juan, Puerto Rico
Trader, Charles W., Crisfield
Trent, Letcher E., Lexington, Ky.
Tunney, Robert B., Baltimore
Varhol, Joseph G., Jr., Passaic, N. J.
Wachsman, Irvin L., Baltimore
Walker, Samuel H., Mt. Gilead, N. C.
Warren, Frank O., Jr., Manchester, N. H.
Webster, Thomas C., Baltimore
Weiss, Maurice R., Pittsburgh, Pa.
Wich, Joseph C., Baltimore
Wilson, Thomas L., Havre de Grace
Wise, Robert E., Swissvale, Pa.
Wishbow, Eleanor M., Jersey City, N. J.
Wooddy, Arthur O., Baltimore
Worgan, David K., Luke
Wysong, William S., Jr., Clarksburg, W. Va.
Yurko, Leonard E., Holidays Cove, W. Va.

Medical Art Students

Blades, Alice P., Baltimore
Cone, Elizabeth S., Baltimore
Stringer, John T., Jr., Portsmouth, N. H.
Towson, Caroline H., Baltimore
Woodland, Virginia, Baltimore

Special Student

Sister Francis Helen, Baltimore

SCHOOL OF NURSING

Graduate Students

Craven, Nancy Lou, Ramseur, N. C.
Culler, Margaret O., Frederick
Foster, Marguerite W., Sparks
Lee, Margaret M., Glen Burnie
Marshall, Lolah H., Baltimore
Richardson, Virginia B., Waverly, Va.
Shaff, Dorothy E., Jefferson
Vandervoort, Susan H., Rantoul, Ill.

Senior Class

Akers, Evelyn G., Baltimore
Albright, Pearl E., Granite
Baer, Martha L., Delta, Pa.
Broadnax, Clarie P., Rock Hill, S. C.
Bussard, Mary M., Jefferson
Conley, Virginia C., Baltimore
Duffee, Ava V., Norfolk, Va.
Gardner, Nellie F., Lynchburg, Va.
Granofsky, Elizabeth C., Baltimore
Horn, Beatrice C., Point of Rocks
Linthicum, Laura E., Linthicum Heights
McIntosh, Annie M., Cheraw, S. C.
Nester, Edna C., Auburn, N. J.
Parks, Bessie M., Parksley, Va.
Pember, Laura G., New Bern, N. C.
Provance, Forothy J., Greensboro, Pa.
Remke, Pauline I., Elm Grove, W. Va.
Rothaupt, Ruth A., Gettysburg, Pa.
Scharf, Nellie M., Glen Burnie
Sherwood, Alida, Indianapolis, Ind.
Skaggs, Mary A., Hinton, W. Va.
Smithson, Ethel B., Easton
Starford, Marianna, Wendel, W. Va.
Teeple, Laura E., Jacksonville, Fla.
Thompson, Ruby E., Hurlock
Vivod, Marion H., Luke
Ward, Dorcas V., Baltimore
Watson, Ada M., Dilliner, Pa.
Wilkins, Amy L., Chestertown
Woerner, Ruth C., Baltimore

Intermediate Class

Almony, Ruth E., White Hall
Barkdoll, Charlotte S., Hagerstown
Chesson, Ruth F., Waverly, Va.
Clarke, Elizabeth S., Washington, D. C.
Edmundson, Margaret B., Mount Olive, N. C.
Evans, Flora E., Linthicum Heights
Foster, Mildred E., Bel Air
Hammer, Nell U., Cumberland
Heintz, Phyllis J., Aldon, Pa.
Higgins, Mary E., Sanford, Fla.
Jones, Thelma M., Grayson, Va.
Lightbourne, Rebekah S., Burlington, N. C.
Liles, Judy, Clayton, N. C.
Long, Sara N., Duncansville, Pa.
Matthews, Charlotte L., Parksley, Va.
Neel, Catherine L., Mount Airy
Parker, Ann Janet, Salisbury
Reynolds, Margaret L., Bluefield, Va.
Rice, Helen, Baltimore
Sample, Myra M., Elizabeth City, N. C.
Scholl, Mary C., Wilmington, Del.
Shaver, Etta M., Westminster
Simmons, Edna V., Bridgewater, Va.
Sinnott, Mary L., Baltimore
Skinner, Edna M., Shepherdstown, W. Va.
Snyder, Peggy J., Windber, Pa.
Stanley, Frances J., Blue Ridge Summit, Pa.
Wilson, Martha C., Kingwood, W. Va.
Wilson, Philena S., Kingwood, W. Va.
Wolfe, Elizabeth L., Stephens City, Va.
Yates, Mary G., Grafton, W. Va.
Zeller, Carolyn D., Baltimore

Junior Class

Albaugh, Ivy M., Hampstead
Alt, Anna D., Baltimore
Baker, Doris C., Waynesboro, Pa.
Baldwin, Beatrice A., Keyser, W. Va.
Beach, Emmett E., Island Creek
Conrad, Jean L., Annapolis
Coard, Louise M., Leemont, Va.
Goodman, Lelia B., Mooresville, N. C.
Hance, Sarah C., Island Creek
Hubbard, Florence, Hurlock
Leonard, Gladys M., Streett
Loock, Peggy E., Baltimore
Skiles, Rachel L., Dundalk
Thumel, Alma D., Baltimore

Probation Class

Angleberger, Grace E., Frederick
Ballard, Emilie M., Hyattsville
Black, Nancy M., Baltimore
Byers, Shirley, Baltimore
Coffman, Mary E., Keyser, W. Va.
Cope, Helen P., Davidson, N. C.
Cranford, Elizabeth V., Washington, D. C.
Deaver, Evelyn L., Delta, Pa.

Etzler, Doris M., Frederick
Ford, Nina M., Rock Hall
Foster, Emma G., Parkton
Frames, Mary O., Bethesda
Frederick, Grace C., Hampstead
Frye, Dorothy M., Baltimore
Garrett, Esther B., Annapolis
Hansen, Ruth A., Washington, D. C.
Hodges, Julia L., Catonsville
Hollister, Sara F., Denton
Jones, Nancy L., Baltimore
Logan, Margaret M., Millington
Magruder, Louise D., Baltimore
Michael, Mary A., Washington, D. C.
Parker, Frances J., Catonsville
Petry, Mary R., Baltimore
Phillippi, Betty A., Cumberland
Repp, Martha V., Westernport
Schroeder, Mary L., Perry Point
Schulze, Margaret E., Baltimore
Shaffer, Karolyn G., Hampstead
Sharp, Mary M., Ladoga, Ind.
Shipley, Helen L., Westminster
Small, Rosalind J., Baltimore
Strider, Emma J., Shepherdstown, W. Va.
Thornton, Grace M., Assawoman, Va.
Tucker, Anna P., Hertford, N. C.
Tucker, Rebecca A., Forest Hill
Whitney, Margaret E., Takoma Park

SCHOOL OF PHARMACY

Senior Class

Alessi, Alfred H., Baltimore
Balassone, Francis S., Thomas, W. Va.
Caplan, Clarice, Baltimore
Celozzi, Matthew J., Baltimore
Cohen, Harry, Baltimore
Cohen, Samuel, Baltimore
Feinstein, Bernard S., Baltimore
Glaser, Louis L., Baltimore
Goldberg, Albert, Baltimore
Greenberg, Joseph, Baltimore
Gumenick, Leonard, Baltimore
Kamenetz, Irvin, Baltimore
Kasik, Frank T., Jr., Baltimore
Kline, Sidney, Baltimore
Klotzman, Robert H., Baltimore
Kramer, Bernard, Baltimore
Kursvietis, Anthony J., Baltimore
Lassahn, Norbert G., Baltimore
Lerman, Philip H., Baltimore
Levin, Leon P., Baltimore
Levy, Irving, Annapolis
Miller, Edward, Baltimore
Poklis, Alphonse, Sparrows Point
Richman, Philip F., Annapolis
Rosen, Donald M., Baltimore
Sachs, Norman R., Baltimore
Sandler, Solomon, Baltimore
Schlaen, Mildred, Baltimore
Shook, Joseph W., Baltimore
Silberg, Edgar M., Baltimore
Simonoff, Robert, Baltimore
Smith, Daniel E., Catonsville
Sowbel, Irving, Baltimore
Zukerberg, Morris A., Baltimore

Junior Class

Buchwald, Eva D., Baltimore
Codd, Francis I., Severna Park
Cohen, Rose P., Baltimore
DeGele, George O., Baltimore
DiGristine, Mary R., Baltimore
Fainberg, Alvin J., Baltimore
Ginsberg, Samuel H., Baltimore
Glaser, Abraham E., Baltimore
Goodman, Leon, Baltimore
Hendin, Walter, Baltimore
Jernigan, John M., Baltimore
Kahn, Reuben, Baltimore
Kreis, George J., Jr., Baltimore
Lindenbaum, Albert, Baltimore
Mayer, Maurice V., Baltimore
Miller, Manuel, Baltimore
Moser, John T., Baltimore
Noveck, Irvin, Baltimore
Rosenthal, Bernard, Baltimore
Rudoff, Oscar, Baltimore
Sarubin, Milton, Ellicott City
Siegel, Harold, Baltimore
Spangler, Kenneth G., Baltimore
Zerwitz, Irving F., Baltimore

Sophomore Class

Berngartt, Elmar B., Baltimore
Blankman, Albert J., Baltimore
Clyman, Sidney G., Baltimore
DeBoy, John M., Halethorpe
Eckes, Charles F., Baltimore
Ehudin, Herbert, Baltimore
Feit, Abraham, Baltimore
Friedman, Jerome S., Baltimore
Getka, Milton S., Baltimore
Gitomer, Marie, Glen Burnie

Goldberg, Milton, Baltimore
Harrison, Alice E., Baltimore
Heyman, Shirley, Baltimore
Jankiewicz, Alfred M., Baltimore
Klavens, Sidney R., Baltimore
Levin, Evelyn S., Baltimore
Myers, Morton, Baltimore
Nollau, Elmer W., Woodlawn
Oken, Jack, Baltimore
Panamarow, Stephen, Baltimore
Pritzker, Sherman, Baltimore
Ramsey, Wilbur O., Lutherville
Reisch, Milton, Baltimore
Rosenberg, Robert, Baltimore
Sacks, Sidney, Baltimore
Shochet, Melvin, Baltimore
Simon, Alder, Baltimore
Smulovitz, Sidney, Baltimore
Sober, Norman, Baltimore
Weaver, Warren E., Dundalk
Weinbach, Eugene C., Baltimore
Whaley, Wilson M., Jr., Baltimore
Wylie, H. Boyd, Jr., Baltimore

Freshman Class

Applebaum, Leonard, Ahoskie, N. C.
Caldwell, John R., Baltimore
Carlisle, Elbert B., Berryville, Va.
Carouge, Gilbert M., Baltimore
Cragg, James P., Baltimore
Finkelstein, Sidney, Baltimore
Gordon, Max, Baltimore
Grave de Peralta, Raoul A., Camaguey, Cuba
Haase, Frederick R., Baltimore
Hutchinson, William J., Baltimore
Hyman, Nathan B., Baltimore
Katz, Doris A., Baltimore
Klotzman, Alfred, Baltimore
Kremer, Beryle P., Baltimore
Lathroum, Leo B., Jr., Baltimore
Levin, Harold P., Baltimore
Lockard, John E., Reisterstown
Minor, Frances, Baltimore
Poulase, Guss N., Baltimore
Rice, Leonard M., Baltimore
Rodman, Leonard, Baltimore
Scheinin, Benjamin, Baltimore
Schwartz, Nathan, Baltimore
Schwartz, Theodore H., Baltimore
Siegel, Alvin M., Baltimore
Sindler, Melvyn, Baltimore
Smith, Morton, Baltimore
Steinberg, Sherman, Baltimore
Stockton, Walter W., Silver Spring
Sussman, Raymond A., Baltimore
Totz, Bernard, Baltimore
Weiner, Earl R., Baltimore
Yarmosky, Jack J., Baltimore
Yevzeroff, Benjamin, Baltimore

Special Students

Burton, Harold F., Monkton
Dansereau, Harry K., Claremont, N. H.
Fisher, David, Baltimore
Hamilton, Kathleen B., Baltimore
Moffett, Virginia M., Catonsville
Rosenblatt, Hilda K., Baltimore
Tuckerman, Louis, Brooklyn, N. Y.
Wilson, Julia E., Baltimore

BALTIMORE
THE SUMMER SCHOOLS—1939
School of Dentistry

Predental Students

Amatrudo, Felix F., New Haven, Conn.
Anderson, Helen L., Sudlersville
Aycock, Robert E., Baltimore
Badenhoop, William H., Baltimore
Capone, Celeste E., Baltimore
Cierler, Irving J., Baltimore
Feit, Sylvan O., Baltimore
Haimovitz, Herman, Baltimore
Karesh, Stanley H., Charleston, S. C.
Kramer, Donald, Baltimore
Kramer, Mervin, Baltimore
Landes, Isaac, Baltimore
Lavine, Bernard S., Trenton, N. J.
Levin, Florence S., Baltimore
Robinson, Earl B., Balboa, Canal Zone
Sauerman, Edward E. K., Jr., Linthicum Heights
Scanlon, John H., Westerly, R. I.
Tongue, Raymond K., Baltimore
Trommer, Felix T., Norwich, Conn.
Vine, Leon, Baltimore
Witman, Harold I., Newark, N. J.
Zeender, Philip J., Annapolis

Dental Students

Bixby, Daniel, Jamestown, N. Y.
Coccaro, Peter J., Jersey City, N. J.
Corder, Woodrow W., Clarksburg, W. Va.
Coroso, Joseph T., Hartford, Conn.
Diamond, Ben, Roanoke, Va.
Gorsuch, Gilbert F., Dundalk
Hyman, Harold, New York, N. Y.
Koenig, Leonard, Brooklyn, N. Y.
Legum, Isidore, Baltimore
Martinelli, Ricardo, Panama City, Panama
Morris, Albert W., Salisbury
Ouellette, Raymond T., Lawrence, Mass.
Pecoraro, Arthur A., New York, N. Y.
Powell, Julius B., Clinton, N. C.
Smith, Bernard, Hagerstown
Wieland, John T., Baltimore

School of Medicine

Bacharach, David N., Jr., Baltimore
Courtney, Donald L., The Dalles, Oregon
Day, Newland E., Baltimore
Eaton, William R., Chester
Eckles, Eleanor, Bryn Mawr, Pa.
Gregory, Exie M., Clarksburg, W. Va.
Kenyon, Harold A., East Falmouth, Mass.
Krepp, Martin W., Jr., Baltimore
Kundahl, Paul C., Germantown
Lusby, Thomas F., Prince Frederick
Marino, Frank S., Middletown, Conn.
Matthews, Henry S., Rose Hill, N. C.
Mitchell, William A., Baltimore
Ortiz, Idalia O., Santurce, Puerto Rico
Posey, Dale M., Christiana, Pa.
Rossberg, Clyde A., Baltimore
Sharp, James H., Fairchance, Pa.
Smith, Benedict F., Baltimore
Townsend, Francis J., Ocean City
Traynor, Francis W., Cumberland
Van Lill, Stephen J., III, Catonsville
Young, John D., Jr., Westminster

School of Pharmacy

Blankman, Albert J., Baltimore
Burton, Harold F., Monkton
DeBoy, John M., Halethorpe
DeGele, George O., Baltimore
DiGristine, Mary R., Baltimore
Dziatkowski, Alice R., Baltimore
Eckes, Charles, Baltimore
Feit, Abraham, Baltimore
Freedman, Leonard, Baltimore
Friedman, Jerome S., Baltimore
Getka, Milton S., Baltimore
Gitomer, Marie, Glen Burnie
Glaser, Louis L., Baltimore
Goodman, Leon, Baltimore
Heneson, Irving J., Baltimore
Jernigan, John M., Jr., Baltimore
Kreis, George J., Baltimore
Kursvietis, Anthony J., Baltimore
Mayer, Maurice V., Baltimore
Miller, Manuel, Baltimore
Noveck, Irvin, Baltimore
Panamarow, Stephen, Baltimore
Pascual, Juan A., Baltimore
Pritzker, Sherman, Baltimore
Ramsey, Wilbur O., Towson
Rosen, Donald M., Baltimore
Rosenthal, Bernard, Baltimore
Rudoff, Oscar, Baltimore
Sachs, Albert, Baltimore
Sarubin, Milton, Ellicott City
Simon, Alder, Baltimore
Sober, Norman, Baltimore
Sowbel, Irving, Baltimore
Stone, Harry, Baltimore
Thumm, C. Ashton, Jr., Baltimore
Zerwitz, Irving F., Baltimore

Graduate School

Professional Schools, Baltimore

Algire, Glenn H., Baltimore
Allen, Benjamin F., Baltimore
Cook, Nevis E., Waleska, Ga.
Cross, John M., Little Falls, N. J.
Dittrich, Theodore T., Baltimore
Gakenheimer, Walter C., Catonsville
Hager, George P., Jr., Baltimore
Hamlin, Kenneth E., Jr., Baltimore
Heyman, Bernice, Baltimore
Jarowski, Charles, Baltimore
Karel, Leonard, Baltimore
Kunkel, Anne, Baltimore
Levin, Nathan, Baltimore
Ruddy, A. Wayne, Auburn, Neb.
Thompson, Raymond K., Riverdale
Zenitz, Bernard L., Baltimore

COLLEGE PARK

THE SUMMER SCHOOL—1939

Abbott, Kathryn K., Bennings, D. C.
Abell, Joseph D., Leonardtown
Abell, Louise B., St. Inigoes
Ackerman, John H., Baltimore
Acree, Samuel, Brooklyn
Adams, Ellen C., Aberdeen
Adams, Hazel M., Oldtown
Adams, Thomas E., Oakton, Va.
Adkins, Aline V., Annapolis
Adkins, Charles S., Ellendale, Del.
Ady, Katherine G., Sharon
Ahalt, Arthur M., Frederick
Aiello, Catherine C., Hyattsville
Aiken, Leonara, Bethesda
Akins, Lillian M., Washington, D. C.
Albin, William D., Rohrersville
Alder, Betty L., Princess Anne
Alexander, Nelle M., Accident
Alexander, Taylor R., Hope, Ark.
Allen, Charles B., Towson
Allen, Louis P., Washington, D. C.
Allen, Rowannetta S., Anacostia, D. C.
Alt, Theodore W., Washington, D. C.
Altmann, Andrew T., Baltimore
Altschuler, Leon, Washington, D. C.
Amass, Jack R., Baltimore
Anderson, Bernhard T., Takoma Park
Anderson, Charles F. W., Baltimore
Anderson, Dorothy N., Linthicum Heights
Anderson, G. Jeannette, Baltimore
Anderson, Howard H., Princess Anne
Anderson, Minnie E., Salisbury
Anderson, Muriel E., Washington, D. C.
Andrews, Myrtle, Crapo
Angel, Ralph L., Dundalk
Appel, John C., Paradise, Pa.
Appler, Helen I., Washington, D. C.
Archer, Louise V., Berwyn
Ardinger, Ellen B., Williamsport
Ardis, Barbara M., Snow Hill
Arnold, Jesse H., Washington, D. C.
Arnold, Thelma H., Brunswick
Arnold, William D., Baltimore
Arosemena, Conrado A., Republic of Panama
Asplen, Emily B., Glen Burnie
Atkins, Sue E., Aberdeen
Augustine, Frances M., Seat Pleasant
Ayers, Alice J., Barton
Babka, Margaret K., Edgewood
Backenstoss, Ross E., Jr., Washington,D.C.
Bailey, Alice H., Federalsburg
Bailey, Howard M., Parkton
Bailey, Reginald T., Highfield
Baity, Earl C., Street
Ball, Herman, Cumberland
Banks, Elizabeth B., Rockville
Bant, William P., Ocean View, Del.
Barber, F. Leone, Hyattsville
Barnard, Charlotte P., Bloomington
Barnes, Edwin H., Elkton
Barnhart, C. Paul, Williamsport
Baron, Herman L., Baltimore
Baroniak, Katherine B., St. Mary's City
Bassford, Elizabeth W., Harwood
Bates, Virginia B., Washington, D. C.
Batt, Helen K., Baltimore
Baum, M. Justin, Washington, D. C.
Baumgardner, Ralph W., Westminster
Beale, Hilda, Upper Marlboro
Beall, Ada M., Libertytown
Beall, Susie C., Beltsville
Beard, Melva F., Annapolis Junction
Beauchamp, Aileen F., Westover
Beavers, Alice D., Upper Marlboro
Beck, Mildred, Cumberland
Becraft, Mabel V., Washington Grove
Bedsworth, Margaret C., Washington, D. C.
Belknap, Edward R., Bethesda
Bell, Lola B., Frostburg
Bellows, John M., Jr., College Heights
Benbow, Gene T., Clinton
Benenson, Hyman, Washington, D. C.
Bennett, Bertha M., Upper Marlboro
Berg, Hyman A., Baltimore
Bernstein, Edith R., Washington, D. C.
Bickmore, Helen D., Washington, D. C.
Biehl, James C., Frederick
Biehl, Katharine L., Frederick
Billings, Marion H., Charlotte Hall
Birch, Marian, Hyattsville
Biret, Elsie, Washington, D. C.
Bittinger, Francis G., Washington, D. C.
Blades, Alice P., Baltimore
Blades, Josephine E., Hillsboro
Blake, Margaret K., Cumberland
Blakemore, Hattie D., Washington, D. C.
Bland, Mildred A., Bennings, D. C.
Blentlinger, Charles L., Frederick
Blentlinger, Nellie E., Frederick
Blond, Bernard, Washington, D. C.
Blondheim, Leonard, Baltimore
Blue, Elmer C., Takoma Park
Blum, Alice M., Baltimore
Blundon, Earl A., Silver Spring
Blunt, Forrest P., Hyattsville
Bolin, Ione S., Mitchell, S. Dak.
Bollinger, George W., Elkton
Bollinger, Gladys G., College Park

Bollinger, Phyllis G., College Park
BonDurant, Edgar H., Mt. Rainier
Bonnett, Howard G., Washington, D. C.
Boone, Athol B., Crisfield
Booth, William T., Salisbury
Borenstein, Frank C., Baltimore
Boughton, Christine B., Silver Spring
Bowen, Kathleen F., Malone, N. Y.
Bowen, Virginia D., Bladensburg
Bowers, Charles W., Bath, N. Y.
Bowie, Blanche L., La Plata
Bowie, Doris L., Laurel
Bowling, Ellen H., Upper Marlboro
Bowling, Thelma P., Faulkner
Bowlus, George S., Boonsboro
Bowlus, Sara E., Jefferson
Boyer, Rodney L., Highland
Brandenburg, Annie LaR., Lisbon
Brandenburg, Emily J., Baltimore
Brandt, Frederick B., Washington, D. C.
Brashears, Florence P., Bennings, D. C.
Brashears, Richard S., Washington, D. C.
Bratt, Hazel M., Oxford
Bratton, William W., Elkton
Breakall, Mary E., Hancock
Brewer, Lucille B., Rockville
Brewer, Naomi L., Annapolis
Brice, Eleanor V., Annapolis
Bride, Crescent J., Rockville
Bright, Josephine L., Laurel
Brightwell, Ralph E., Lisbon
Brill, Warren D., North Beach
Britton, Rose E., Washington, D. C.
Broadwater, Marian V., Grantsville
Brooks, Alice S., Arlington, Va.
Brown, Clara E., Annapolis
Brown, Donald F., Annapolis
Brown, John W., Jr., Bethesda
Brown, Kathrine, Centreville
Brown, Lola P., Church Hill
Brown, Lucile A., Seat Pleasant
Brown, Margaret A., Washington, D. C.
Brown, Ruth D., Woodstock
Brown, Virginia L., Washington, D. C.
Bruehl, John T., Jr., Upperco
Bruehl, Paul E., Centreville
Bruninga, Jessie H., Washington, D. C.
Bruns, Helen A., Baltimore
Brunt, Gertrude W., Washington, D. C.
Bryan, Marie D., Baltimore
Bryant, Slater W., Jr., Baltimore
Buch, Eloise A. A., Baltimore
Buckel, Ralph L., Bittinger
Buckler, Mary F., Aquasco
Buddington, Arthur R., College Park
Bullough, George Van N., Baltimore
Burhoe, Alice P., Takoma Park
Burk, Joseph, Woodlawn
Burke, Elizabeth M., Hyattsville
Burke, Francis V., Silver Spring
Burley, Mary E., Washington, D. C.
Burnett, Pelham R., Baltimore
Burtner, Emma B., Keedysville
Burton, Basil M., Monkton
Bush, Anne H., Haverford, Pa.
Bush, Inez M., Bloomington
Butler, Mary E., Sudlersville
Butler, Elva R., Preston
Byer, Henry L., Dundalk
Cade, Hilda R., Denton
Callahan, Mary N., Easton
Calomiris, Catherine, Washington, D. C.
Calver, Georgianna E., North Beach
Campbell, Esther F., Washington, D. C.
Campbell, George A., Jr., College Park
Campbell, Marjorie H., Washington, D. C.
Cann, Alice V., Baltimore
Cannon, Elizabeth, Denton
Cantwell, Hammond D., Cambridge
Caple, George H., Jr., Westminster
Carey, Asher B., Jr., Frankford, Del.
Carey, Madalyn R., Salisbury
Carleton, Harold B., Washington, D. C.
Carlson, Richard D., Linthicum Heights
Carver, Lynda M., Washington, D. C.
Cary, Charles G., Riverdale
Case, Richard W., Berwyn
Casson, Margaret H., Easton
Castle, Olive M., Brownsville
Chadwick, Louise A., Washington, D. C.
Chandler, Edmond T., Westmoreland Hills
Chapman, Aurelius F., Marietta, Ga.
Chase, Ruth W., Chevy Chase
Cheezum, M. Lillian, Preston
Cherrix, Nellie V., Berlin
Cherry, Jack F., Washington, D. C.
Chesley, H. Elizabeth, Baltimore
Cheston, Harvey J., Jr., Washington, D. C.
Chew, Mary V., West River
Cissel, Beatrice S., West Friendship
Cissel, Chester M., Lisbon
Clagett, Jennie DeW., Upper Marlboro
Clark, Clara M., Takoma Park
Clark, Edith V., Washington, D. C.
Clark, Geneva W., Rockville
Clark, Lois O., Mt. Rainier
Clarke, E. Maurice, Sabillasville
Clarke, Frank E., Westminster
Clayman, Henry, Baltimore
Claytor, Margaret A., Riverdale
Clements, Doris M., Washington, D. C.
Clevenger, Helen E., Everett, Pa.
Clopper, Elizabeth S., Elkridge
Clopper, Richard R., Elkridge
Close, Marion B., Frostburg
Coates, Lyla M., Washington, D. C.

Cockey, Joshua H., Monkton
Coe, Adelaide E., Washington, D. C.
Coe, Paul M., Washington, D. C.
Coffman, Earl, Hagerstown
Coffman, Mary A., Keedysville
Cohen, Milton J., Washington, D. C.
Coleman, Albert S., Washington, D. C.
Colip, Louise R., Mt. Rainier
Collings, Helen T., Crewe, Va.
Comp, Frances T., Deer Park
Condon, Robert D., Baltimore
Conlon, Mary K., Baltimore
Conway, Margarete S., Washington, D. C.
Cook, Elmer E., Brooklyn
Cook, H. Irvin, Hyattsville
Cook, Laurel D., Bethesda
Cooke, Alfred A., Hyattsville
Cookson, Grace I., Uniontown
Cooling, Gilbert C., Barton
Copes, Grace R., Silver Spring
Corbin, Clinton W., Crisfield
Corbin, Samuel E., Westminster
Cordrey, Clarence H., Salisbury
Cordrey, Myra E., Pittsville
Corkins, Jane E., Baltimore
Cornnell, Norma L., Washington, D. C.
Cotton, Daisy C., Arlington, Va.
Coulbourn, Alice M., Princess Anne
Councill, Wilford A. H., Jr., Baltimore
Cox, Louis T., Dundalk
Cox, Myrtle G., Huntingtown
Coyle, Bernard J., Jr., Upper Marlboro
Coyle, M. Lorraine, Upper Marlboro
Cramblitt, Maxine T., Cumberland
Cramer, Bessie W., Washington, D. C.
Creery, Ruth C., Baltimore
Cressman, Kathryn L., Boonsboro
Criner, Ploomie E., Washington, D. C.
Croddy, Arnold J., North East
Cromwell, Howard L., Washington, D. C.
Cromwell, Mildred V., Baltimore
Cronin, William B., Aberdeen
Cronise, Alice K., Frederick
Cropper, Florence D., Charlotte Hall
Crosby, Muriel E., Washington, D. C.
Crowder, Adelaide M., Washington, D. C.
Crumb, Mary R., Washington, D. C.
Cullen, Emily M., Edgewater
Cullen, James G., Baltimore
Culler, W. Walter, Walkersville
Culton, Thomas G., Parksville, Pa.
Cunningham, Hilda S., Washington, D. C.
Curley, Erma W., Washington, D. C.
Curley, Kathryn L., Washington, D. C.
Curry, Hattie A., Greensboro
Curtis, E. Gertrude, Crisfield
Cutler, Dorothy M., Silver Spring
Daffin, Virginia B., Easton
Daly, Ruth S., Chevy Chase
Danenhower, Myrtle B., Upper Marlboro
Dantoni, Joseph L., Baltimore
Darby, Eloise R., Laurel
Daugherty, Irvin W., Williamsport
Davidson, Lida M., Chevy Chase
Davidson, Nellie M., Silver Spring
Davis, Agnes M., Washington, D. C.
Davis, Margaret E., Washington, D. C.
Davis, Ralph F., Baltimore
Dawson, Helen M., Edgewater
Dean, Mary G., Cambridge
Decker, Evelyn M., Poughkeepsie, N. Y.
Deffenbaugh, Ruth, Washington, D. C.
Delaney, Atlee M., Charleston, W. Va.
Deming, Andrew S., Jr., Washington, D. C.
Denaburg, Jerome, Baltimore
Dent, Ida L., Oakley
Derr, Laura N., Hampstead
Dick, Arthur A., Dundalk
Diffenderfer, Harry S., New Bloomfield, Pa.
Diggs, William B., Jr., Baltimore
Dillon, Mary C., Washington, D. C.
Dittmar, Gordon F., Baltimore
Diver, Grant, Baltimore
Dixon, Mildred H., Denton
Dodd, Ocie E., Chevy Chase, D. C.
Dodge, Charles H., McLean, Va.
Dodson, Charles M., Mount Airy
Donahay, Katharine, Washington, D. C.
Donaldson, William L., Boonsboro
Donnally, Harry H., Jr., Washington, D. C.
Dorfman, Joseph S., Washington, D. C.
Dorsey, Agatha V., Midland
Dorsey, Carl K., Fulton, Mo.
Dorsey, E. Elizabeth, Sykesville
Doty, Anne M. K., Washington, D. C.
Dowden, Elisabeth E., Washington, D. C.
Downey, Hugh P., Washington, D. C.
Downey, Milbrey A., Williamsport
Downey, Mylo S., Hyattsville
Downs, Hugh G., Jr., Hagerstown
Downton, Lydia M., Cumberland
Doyle, Catherine M., Washington, D. C.
Drum, Joseph P., Eckhart Mines
Drum, Mary M., Eckhart
Drumm, Edith E., Millersville, Pa.
Drury, Mary B., Leonardtown
Dudderar, Charles W., Baltimore
Duey, Pauline, Washington, D. C.
Duffey, George L., Greensboro
Dugan, Raymond F., Bethesda
Dukes, Barbara A., Washington, D. C.
Duncan, John M., Washington, D. C.
Dunn, Katherine C., Silver Spring
Durner, Viola D., Severn
Duvall, Maude R., Rockville
Dyott, Hazel S., Easton

Dyson, Erma M., Washington, D. C.
Earle, John H., Washington, D. C.
Earle, Mary I., Washington, D. C.
Earnest, Margaret V., Cumberland
Eby, Annabelle V., Sabillasville
Eckenrode, Charles J., Emmitsburg
Eckenrode, Mary R., Baltimore
Edelen, Mary B., Bryantown
Edmons, Elizabeth M., Takoma Park
Edson, Donald C., Billings, Mont.
Edwards, Paul M., Washington, D. C.
Edwards, William L., Catonsville
Ehart, Grace H., Port Deposit
Ehrlich, Raphael H., Washington, D. C.
Elderdice, Robert A., Salisbury
Ellerbe, Liswa D., Washington, D. C.
Elliott, Marcia A., Annapolis
Elliott, Robert J., Catonsville
Ellis, Norman L., Whaleysville
Ellis, Rachel G., Seaford, Del.
Ellison, Margaret I., Washington, D. C.
Elms, Margaret E., Kensington
Elvin, Kay D., Frostburg
Enderle, Ethel E., Glen Burnie
England, Collin B., Washington, D. C.
England, William H., Jr.,Washington, D. C.
Epstein, Fern F., Grantsville
Erickson, Audrey L., Washington, D. C.
Erickson, Janet A., Annapolis
Evans, Hal K., Bladensburg
Evans, Margaret E., Owensboro, Ky.
Evans, Thomas H., Cambridge
Evans, William B., Jr., Ewell
Eveland, Thomas C., Hillsboro
Everson, Emma D., College Park
Eyler, Marian G., Cumberland
Faltz, Kathryn M., Hagerstown
Farkas, Robert W., York, Pa.
Farmer, Ralph E., Bailey, N. C.
Fawcett, Howard H., Cumberland
Feaga, Beverly H., Frederick
Fearnow, Genevieve A., Washington, D. C.
Ferree, Dolores J., Frostburg
Ferry, Charles H., Washington, D. C.
Filler, W. Arthur, Baltimore
Finch, Nancy A., Chevy Chase
Fisher, Watson Van N., Washington, D. C.
Flanagan, Francis J., Fort Geo. G. Meade
Flanagan, Inez E., Frederick
Fleckenschildt, Margaret H., Baltimore
Fleetwood, Nancy C., Bishopville
Flemer, Mary-Frances, Washington, D. C.
Fleming, Thomas W., St. Michaels
Fletcher, Theodore E., Jr., Preston
Floto, Lewis E., Berlin, Pa.
Footen, Paul L., Barton
Ford, Foster E., Boonsboro
Ford, William H., Millington
Forsberg, Robert A., Rockville
Forsyth, Augusta McC., Washington, D. C.
Foster, Earnest F., Washington, D. C.
Fowkes, Ruth, Mt. Rainier
Franklin, Ann, Chevy Chase
Freeman, L. Louise, Frederick
Freeman, Willye B., Crestview
French, Samuel L., Rumbler
Frere, Mathilda C., Leonardtown
Frey, Barbara C., Smithsburg
Frischknecht, Carl, Logan, Utah
Fristoe, Virginia R., Linthicum Heights
Fry, Martha K., Bethesda
Fuerst, Robert G., Riverdale
Fugitt, Mary A., Washington, D. C.
Fulgham, Evel W., Washington, D. C.
Fuller, Ruth O'R., Washington, D. C.
Fullington, Page DeF., Washington, D. C.
Fulmer, Edna M., Frederick
Fulmer, Lillian L., Frederick
Fulton, Elizabeth C., Bowie
Fulton, George P., Washington, D. C.
Furgang, Francis E., Cheltenham
Gafford, Ruth W., Salisbury
Galbreath, Thomas C., Rocks
Gardner, Emma A., Washington, D. C.
Gattis, Reid W., Mt. Rainier
Gellner, Clarissa M., Long
Gendason, Daniel L., Washington, D. C.
Getty, Mildred N., Silver Spring
Gibson, Hannah S., Delmar
Gibson, H. Madeline, Glen Burnie
Gibson, Margaret H., Washington, D. C.
Gibson, Rachel F., Glen Burnie
Gienger, George H., Washington, D. C.
Gilbert, Marjorie W., Vienna
Gilbert, Roland A., Laurel
Giles, Nathan L., Washington, D. C.
Gillespie, Warren, Galena
Gillett, Donald M., Washington, D. C.
Gillett, Thornton R., Washington, D. C.
Gilliam, Charlotte O., Takoma Park
Gisriel, Austin E., Elkridge
Gisriel, Cornelius E., Elkridge
Glading, Rebekah F., Lanham
Glenn, Carmela A., Washington, D. C.
Goden, Alan, Baltimore
Godlove, Arnold L., Hagerstown
Goebel, Dorothy M., Washington, D. C.
Goldsmith, John S., College Park
Goldstein, Albert E., Jr., Baltimore
Goller, Carl, Baltimore
Gontrum, Charles H., Baltimore
Goode, Eloise J., Maddox
Goode, Hazel N., Brunswick
Goodpasture, Esther M., Washington, D. C.
Gordon, Fortuna L., Fayette, Mo.
Gordy, E. Marvel, Salisbury

Gossage, Howard S., Washington, D. C.
Gough, Hazel O., Washington, D. C.
Graddick, Charlene W., Chevy Chase
Granek, Abraham, Baltimore
Graves, Mary L., Kensington
Green, Mary O., Boyds
Greenaway, Irene C., Arlington, Va.
Greene, Hilda B., Frederick
Greenip, John F., Washington, D. C.
Greenwald, Anne R., Baltimore
Greenwell, Gertrude H., Leonardtown
Greenwood, Judith K., Washington, D. C.
Griffith, Susan Q., Federalsburg
Grimes, Elmer W., Washington, D. C.
Grimes, Maye E., Woodbine
Grimm, William C., Grantsville
Grogan, Mariana, Washington, D. C.
Grove, Edith M., Washington, D. C.
Grove, James F., Washington, D. C.
Grove, Milford S., Williamsport
Gue, Ruth S., Rockville
Guilford, Charles C., Washington, D. C.
Gunby, Clara C., Salisbury
Gunderloy, Elisabeth F., Pasadena
Gunderloy, Frank C., Pasadena
Gusack, Sue G., Washington, D. C.
Guy, Anne W., Chevy Chase
Haas, Frances S., Takoma Park
Hackett, Eunice M., Secretary
Hackney, James C., Greensboro, N. C.
Haddaway, Vaden J., Jr., Woodlawn
Hagenbuch, Ola K., Hyattsville
Haile, Margaret E., Towson
Hales, Aris E., Cambridge
Hall, Bruce McC., College Park
Hall, Marguerite G., Baltimore
Hall, Richard W., Chestertown
Hall, Ruth B., Hyattsville
Hall, Thomas A., Washington, D. C.
Hambleton, James A., Washington, D. C.
Hamilton, Kathleen B., Baltimore
Hammond, John C., Silver Spring
Hampton, Isabel McD., Princess Anne
Hance, John C., Washington, N. J.
Hance, Virginia A., Wilson
Hand, George E., Washington, D. C.
Hanley, Julia H., Princess Anne
Hanna, Otis D., Port Deposit
Hanson, Mary E., Frostburg
Hanson, Ruth, Frostburg
Harbaugh, Eleanor H., Hagerstown
Harbold, Charlotte R., Annapolis
Hardesty, A. Marie, Newburg
Hardesty, Leila V., Port Republic
Harley, Agnes B., Brunswick
Harmon, Elizabeth V., Eastport
Harmon, Katharyn E., Salisbury
Harmon, Robert B., Takoma Park
Harner, Carrie N., Taneytown
Harper, Elma E., Trenton, N. C.
Harris, Elizabeth M., College Park
Harris, Helen, Betterton
Harris, Joseph, Baltimore
Harris, LeRoy S., Damascus
Harrison, Betty L., Hyattsville
Harrison, Elizabeth S., Westminster
Harrison, Florence K., College Park
Harrison, George K., Upper Marlboro
Hartenstein, Helena J., New Freedom, Pa.
Harver, Fred F., Fallston
Harvey, Lillian LaV., Oakland
Haslbeck, Lawrence A., Cumberland
Haslup, Charles A., Linthicum Heights
Hatcher, Margaret L., Brownsville
Hayden, Agnes, Pope's Creek
Hayden, Richard C., Chevy Chase
Hayes, Earl T., Mullan, Idaho
Hayman, John B., Pocomoke
Hayward, Sara M., Snow Hill
Hazard, Alfred S., Takoma Park
Head, Julia E., Hyattsville
Hearne, M. Elizabeth, Pittsville
Hege, Jerry C., Washington, D. C.
Hein, Mason C., Hyattsville
Heinze, Peter H., Kahoka, Mo.
Heironimus, Clark M., Washington, D. C.
Helwig, G. Alfred, Timonium
Helwig, Jeanette W., Timonium
Henderson, Edna C., Richmond, Va.
Henderson, Eileen S., Washington, D. C.
Henderson, Mattie C., Salisbury
Henderson, William H., Greensboro
Henley, Robert C., Elkridge
Hennick, Donald C., College Park
Hepbron, Louise I., Betterton
Herwig, Edward H., Baltimore
Hess, Carl W., Amana, Iowa
Hess, Jeanette S., Washington, D. C.
Heyer, Frank N., Baltimore
Hickey, Routh V., Pope's Creek
Hickman, Walter R., Baltimore
Hicks, Ara L., Dickerson
Hicks, Minnie E., Chestertown
Higgins, Homer S., Cumberland
Hignutt, Alice F., Denton
Hill, Carl R., Washington, D. C.
Hill, Mary E., Conowingo
Himelfarb, Norman H., Washington, D. C.
Himmel, Mildred C., Baltimore
Hirsch, Albert, Frederick
Hitch, Thomas E., Washington, D. C.
Hitz, Chester W., Fortescue, Mo.
Hodges, Hazel H., Takoma Park
Hogan, Ralph M., Jr., Alexandria, Va.
Hohouser, Henry S., Washington, D. C.
Holden, Delma M., Baltimore

Holland, Martha S., Jarrettsville
Holley, Julia W., Damascus
Holmead, Eleanor C., Silver Spring
Holmes, Forrest S., Jr., College Park
Holmes, Miriam McD., College Park
Holmes, Ruth H., Hyattsville
Holt, Nadine R., Washington, D. C.
Holter, Mary M., Loreley
Hopkins, Amy L., Gambrills
Hopkins, Anna C., Laurel
Hopkins, Grace R., Easton
Horn, Harold M., Cumberland
Horn, John J., Baltimore
Horn, Robert H., Baltimore
Hoshall, George W., Parkton
Hough, Lillian E., Seneca
Howard, Beth T., Washington, D. C.
Howard, Eugene, Baltimore
Howard, Park P., Havre de Grace
Howland, Lionel B., Jr., Laurel
Hoyle, Anne M., Chestertown
Hubbard, Olive W., Greensboro
Hubel, Shirley C., College Park
Hudson, Howard E., Westminster
Hudson, Vann D., Dundalk
Hughes, Catharine, Whiteford
Hughes, Vincen J., Jr., Baltimore
Humberson, Lenore M., Myersville
Hume, Charlotte M., Adamstown
Humphrey, Charles VanB., Baltimore
Humphrey, Edwin E., Washington, D. C.
Hunt, Lula W., Annapolis
Hunt, Woodweard, Lumberton, N. C.
Hunter, Ruth, Silver Spring
Hurlbut, Lucille A., Omaha, Nebr.
Hurley, Robert F., Hyattsville
Hurley, Walter V., Hyattsville
Hutchison, Stella B., Queen Anne
Hutton, Amelie C., Brinklow
Hutzell, Vera K., Boonsboro
Hyde, Jennie M., Barton
Hyman, Harold, Meriden, Conn.
Hyslop, Charles D., Silver Spring
Iager, Helen L., Hyattsville
Ingles, Marie D., Cumberland
Ison, M. Patricia, Hyattsville
Ivins, May E., Lansdowne
Izsak, John A., Halethorpe
Jack, Sarah G., Port Deposit
Jackson, Lois P., Princess Anne
Jacques, Mary L., Smithsburg
James, Jennie P., Mt. Rainier
Jefferys, Wilbur T., Washington, D. C.
Jehle, Ruth A., Hyattsville
Jenkins, Bruce G., Oakland
Jenkins, Margaret R., Williamsport
Johnson, Eldred DeW., Upper Falls
Johnson, Hugh D., Baltimore
Johnson, Katherine G., Rockville
Johnson, Robert W., Baltimore
Johnston, Charles Y., Martinsburg, W. Va.
Johnston, Margaret E., Washington, D. C.
Johnstone, Mary E., Silver Spring
Jones, Anne F., Washington, D. C.
Jones, Bernice, Takoma Park
Jones, Carrie R., Church Creek
Jones, Charles M., Cumberland
Jones, H. Bradley, Sharon
Jones, Helen J., Greenbelt
Jones, Jennie R., Bishop's Head
Jones, Joseph M., Salisbury
Jones, Mary E., Loveville
Jones, Mary T., Salisbury
Jones, Nelson R., Washington, D. C.
Jones, Omar J., Faulkner
Jones, Oscar B., Shenandoah Junction, W. Va.
Jones, Robert E., Hyattsville
Joy, Mary E., Leonardtown
Joyce, Joseph M., Hyattsville
Joyce, (Brother) Paul, Baltimore
Judy, Gladys L., Cumberland
Jump, Raymond, St. Michaels
Kalbaugh, Virginia M., Luke
Kangas, Charles W., Kinney, Minn.
Kanthlener, Henry F., Sioux City, Iowa
Kapiloff, Leonard, Baltimore
Kassel, Victor, Brooklyn, N. Y.
Katz, Bertha, Washington, D. C.
Katz, Mildred R., Baltimore
Katzenberger, William L., Catonsville
Kaufman, Fred W., Baltimore
Kaufman, Gee L., Washington, D. C.
Keating, Lyda, Baltimore
Keefe, Ruth C., Grantsville
Keesee, Frances M., Dickerson
Keirn, Etta L., Washington, D. C.
Keller, Holly M., Bethesda
Kemp, Margaret C., College Park
Kemp, Phyllis L., Trappe
Kemp, William B., Baltimore
Kenney, Katherine J., Frostburg
Kerby, Melva W., Washington, D. C.
Kerby, Olive P., Bennings, D. C.
Kerr, John R., Hagerstown
Kesler, Katherine E., Silver Spring
Kesner, Melvin E., Accident
Kiernan, Harry D., Jr., East Haven, Conn.
Kimball, Vera K., Washington, D. C.
Kimberlin, Nettie, Glenwood
King, Hilda R. W., Germantown
King, Mary L., Germantown
King, Olive E., Clinton
King, Richard H., Chevy Chase
Kingsley, Eunice L., Manhattan, Kans.
Kinna, Charles R., Chewsville

King-Smith, Grayce, Washington, D. C.
Kinsey, Allan S., Jr., Baltimore
Kirby, Marion, Takoma Park
Kirchner, Francis C., Churchton
Kirkman, Harriet V., Catonsville
Kleiman, Albert L., Baltimore
Klein, Charles F., Baltimore
Kline, M. Vivian, Cumberland
Kline, Margaret M., Cumberland
Klug, Howard J., Washington, D. C.
Knotts, Dorothy E., Templeville
Kooken, Nellie R., Westernport
Koppelman, Mary, Cornwall-on-Hudson, N. Y.
Kornmann, Lucille V., Baltimore
Kremen, Benjamin G., Baltimore
Kreuzburg, Harvey W., Silver Spring
Kupka, Anthony, Bethesda
Kyle, May T., Washington, D. C.
Ladson, Marcia, Rockville
Lakin, Elizabeth H., Cumberland
LaMar, Austin A., Jr., Sandy Spring
Lambert, Henry D., Washington, D. C.
LaMotte, Jane A., Woodlawn
Lamparter, Harry J., Lancaster, Pa.
Lancaster, Margaret I., Fallston
Landon, Charlotte L., Sherwood
Lane, Gordon B., Centreville
Lanham, Paul T., Lanham
Lank, Murrell C., Washington, D. C.
Lansdale, Thomas F., Sandy Spring
Larison, Oliver K., Chevy Chase
Larrimer, Frances E., Hanover
Latimer, Kathryn, Washington, D. C.
Laughlin, Kathryn E., Cumberland
Lautenberger, George F., Baltimore
Lawlis, Tilden T., Overlea
Layman, Zeola P., Frostburg
Leatherman, Margaret N., Myersville
Leatherman, Marshall H., Myersville
Lederhos, Virginia L., Arnold
Lee, John P., Bethesda
Lee, Mary M., Bethesda
Legg, Anna L., Stevensville
Lehman, Ward M., Berlin, Pa.
Lemmermann, Henry J., University Park
Lennon, Mary R., Baltimore
Leon, Albert K., Jr., Washington, D. C.
Leonard, Clara B., Trappe
Leonard, James D., Chevy Chase
Leonard, Katherine M., Trappe
Leonard, Norma L., Trappe
Levin, Sol, Baltimore
Levine, Melvin L., Ames, Iowa
Lewis, Francis A., Sykesville
Lewis, Mary F., Cambridge
Lewis, Mollie M., Washington, D. C.
Lichliter, Lawrence D., Washington, D. C.
Liggett, Carrie E., Washington, D. C.
Ligon, Julia C., Brinklow
Likely, Dorothy E., Savage
Likely, Robert H., Savage
Lindahl, Frances T., Washington, D. C.
Lines, Helen J., Silver Spring
Link, Daniel C., Hedgesville, W. Va.
Link, (Sister) Flavia, Baltimore
Linthicum, Eleanor E., Washington, D. C.
Linthicum, Parepa F., Washington, D. C.
Lippy, E. Louise, Mt. Airy
Lipscomb, Angela C., Bethesda
Livingstone, Nannie D., Cumberland
Logsdon, Herbert C., Hagerstown
Longest, Katherine A., Baltimore
Longridge, Mary M., Barton
Lopata, John, Baltimore
Lowe, Cletus D., Shepherdstown, W. Va.
Lowe, William E., Marion Station
Lusk, Thomas R., Washington, D. C.
Lynch, Elizabeth, Crisfield
Lynch, Harold P., Cumberland
Lyon, Marie H., Takoma Park
Lyons, Margaret M., Cumberland
Macdonald, Elizabeth C., Silver Spring
Magaha, Dora M., Frederick
Magaha, Margaret K., Frederick
Mahaney, William H., Towson
Mahar, John D. (Rev.), Baltimore
Mahrer, Mary E., Wilmington, Del.
Males, Irwin J., Washington, D. C.
Manley, Catherine E., Midland
Manley, Mary E., Midland
Martin, Carrie P., Baltimore
Martin, Gerard J., Annapolis
Maslin, William R., Port Chester, N. Y.
Mason, Amy E. L. S., Washington, D. C.
Masters, John L., Hagerstown
Matheke, Joan B., Newark, N. J.
Mather, Constance, Poughkeepsie, N. Y.
Mathias, Jeannette L., Westminster
Matson, Ruby I., Takoma Park
Matthews, Abigail G., LaPlata
Maus, Evelyn V., Westminster
Maxwell, Francis T., Towson
Mayes, Irvin C., Timonium
McAllister, Mable W., Vienna
McCall, Mildred L., Washington, D. C.
McCardell, Ethel C., Hagerstown
McCauley, Eloise C., Bennings, D. C.
McComas, Lois C., Abingdon
McCusker, Richard W., Pikesville
McDaniel, H. Louise, Jarrettsville
McDermott, Roger D., Litchfield, Conn.
McDowell, S. Mildred, Nottingham, Pa.
McGann, Theodore, Washington, D. C.
McGinnis, Verneena, Indian Head
McGregor, Bessie, Washington, D. C.

McGuigan, Hilda C., Halethorpe
McIntire, Doris L., Friendship Station, D. C.
McKeever, Antoinette D., Silver Spring
McKeever, Edith H., Kensington
McKenna, Emily B., Bethesda
McKeon, (Brother) Alvin, Baltimore
McKinney, Andrew A., Washington, D. C.
McLaughlin, Lois I., Washington, D. C.
McMahan, Catherine E., Cambridge
McMahon, Helen E., Federalsburg
McNally, Edmund H., Washington, D. C.
McQuade, John F., Baltimore
McVey, Thelma C., Aberdeen
Meanley, Brooke, Baltimore
Measell, Ira D., Jr., Upper Marlboro
Medbery, Dorothy A., Washington, D. C.
Meese, Florence L., Barton
Meese, Minnie M., Barton
Melchior, Audrey S., Edgewood
Melchior, Donald F., Baltimore
Mellichampe, Susanne S., Washington, D. C.
Meltz, Harry R., Baltimore
Meng, Caroline T., Washington, D. C.
Mericle, Harold I., Washington, D. C.
Merriman, Gladys H., Barton
Metcalfe, Verna M., Silver Spring
Meyer, Elmer L., Jr., Baltimore
Meyer, John J., Jr., Catonsville
Middleton, Frederic A., Washington, D. C.
Mike, Emma M., Washington, D. C.
Miles, Charlotte F., Mathews, Va.
Mileto, Catherine, Annapolis
Milhado, Cathryn V., Owings
Milkie, Frederick E., Washington, D. C.
Miller, Charley B., Friendsville
Miller, Dorothy M., Denton
Miller, Edwin H., Hagerstown
Miller, Frances E., Roselle Park, N. J.
Miller, Robert J., Severna Park
Miller, Verna, Lonaconing
Milliken, Julia W., Silver Spring
Milloff, Bernard, Silver Spring
Mills, Christine, Washington, D. C.
Mills, Wyona T., Toddville
Minnick, Grace V., Hyattsville
Mishtowt, Basil I., Chevy Chase
Mitchell, Frank P., Salisbury
Mitchell, Margaret H., Silver Spring
Mitchell, Mary, Jessups
Mitchell, Nellie, Cambridge
Moler, Lucille N., Silver Spring
Moler, Margaret V., Baltimore
Monocrusos, Marguerite S., Baltimore
Monroe, Mary E., Washington, D. C.
Moore, Henry W., Washington, D. C.
Moore, Oscar K., Gainesville, Fla.
Morgan, L. Gertrude, Denton
Morris, Grace J., Avenue
Morrow, Mary E., Washington, D. C.
Moser, Karl J., Chevy Chase
Moss, Howard M., Tokyo, Japan
Moss, Margaret B., Annapolis
Moss, Mary E., Annapolis
Motyka, Agnes L., Washington, D. C.
Mowbray, Maud E., Barton
Mudd, Dorothy A., Bryantown
Mudd, H. Virginia, Pomfret
Muhlenfeld, Louise F., Baltimore
Mullendore, Louise C., Washington, D. C.
Muller, Marion B., Bradshaw
Mullinix, Esther LaR., Woodbine
Mullinix, Ruth F., Gaithersburg
Mumford, John W., Jr., Hyattsville
Mumm, Lucille W., Greenbelt
Murphy, Grace B., Forest Glen
Murphy, Harry T., Ellicott City
Murray, Banks A., Silver Spring
Murray, Loren C., Elkton
Myers, Barbara J., Washington, D. C.
Myers, Mabel E., Frostburg
Myers, Mary E., Hagerstown
Myrick, Floyd A., Timonium
Nachlas, Bernard, Baltimore
Nathanson, David, Baltimore
Nathanson, Jerome L., Baltimore
Needy, Glendora E., Boonsboro
Neff, Virginia K., Frostburg
Nelson, Gladys W., Takoma Park
Newman, Jeannette R., Washington, D. C
Newman, Marian A., Washington, D. C.
Nichols, Dorothy V., Chevy Chase
Nichols, John H., Baltimore
Nichols, Mary E., Brunswick
Nicht, Anna M., Frostburg
Nickell, Louise C., Rising Sun
Nides, Nicholas G., Centreville
Nitzel, Henry D., Baltimore
Nolan, Edna P., Mt. Rainier
Nordby, Aagot F., Washington, D. C.
Nordby, Robert C., Washington, D. C.
Norford, Archie B., Alexandria, Va.
Norman, Julia B. T., Annapolis
Norris, Catherine H., Westminster
Norris, Cecil, Baltimore
Norris, Kathleen, Washington, D. C.
Norris, Leo B., Washington, D. C.
Northam, David E., Snow Hill
Nowell, Jessie B., Washington, D. C.
Ogden, E. Ann, Baltimore
O'Keefe, Bernice E., Rockville
Ornett, Pauline H., Easton
Ossenmacher, (Sister) Philomena, Baltimore
Oswald, Irene G., Cavetown

Owens, Doris E. C., Hanover
Owens, Elizabeth W., Linthicum Heights
Owings, Helen B., Owings
Owings, Jane C., Riverdale
Padgett, Elsie F., Anacostia, D. C.
Pailthorp, Robert W., Takoma Park
Palmer, Carroll F., Washington, D. C.
Panciotti, Michael E., Derby, Conn.
Pardee, Grace R., Washington, D. C.
Parker, Mabel H., Glen Burnie
Parks, Catherine W., Crisfield
Parrish, Marie, Upper Marlboro
Parvis, Charles F., Baltimore
Patrick, Mary R., Westernport
Pattie, Edna S., New Cumberland, Pa.
Paulhus, Norman G., Willimantic, Conn.
Paulsgrove, Eleanor A., Hagerstown
Payne, Margaret P., Princess Anne
Pearson, Anna M., Greensboro
Pearson, Henry R., St. George Island
Peckham, Margaret T., Washington, D. C.
Peiffer, Lou F., Severn
Peiter, Doris S., Washington, D. C.
Pell, Betsy R., Washington, D. C.
Pendleton, George, Washington, D. C.
Pennella, Michael, Washington, D. C.
Peregoy, Harry A., Upperco
Perry, Ella M., Hyattsville
Person, Gladys M., Chevy Chase
Peters, Emily R., Beltsville
Peters, Roy F., Washington, D. C.
Peterson, Ernest H., Billingsley
Petry, David A., Felton, Del.
Petty, Mary A., Washington, D. C.
Pfeiffer, Paul E., Annapolis
Pfeil, Edgar T., Jr., Baltimore
Phelps, R. Nelson, McDonogh
Phillips, Altina L., Washington, D. C.
Phillips, Esther V., Silver Spring
Phillips, Gladys E., Cambridge
Phillips, Wilbur M., Hagerstown
Pilchard, Lucy S., Snow Hill
Pindell, Betty T., Glenwood
Piozet, Nina C., Hyattsville
Plitt, Karl F., Chevy Chase
Plowden, Edna W., Newport
Plumer, Gertrude E., Huntingtown
Podolsky, Dolly, Baltimore
Podolsky, William G., Baltimore
Poffenberger, Elmer L., Sharpsburg
Poland, Hazel A., Westernport
Poole, Helen N., Hagerstown
Posey, Walter B., Upper Marlboro
Potts, B. Sheba, Baltimore
Poulson, Vivien E., Delmar
Powell, Elizabeth H., Princess Anne
Powell, George C., Baltimore
Powell, Mildred, Princess Anne
Price, Mildred R., Hampstead
Prickett, Hilda M., Berwyn
Priest, Hazel M., Washington, D. C.
Prinz, John W., Baltimore
Pritchard, Orpha B., Cumberland
Pritchard, Virginia G., Cumberland
Pritz, Garner S., Berlin, Pa.
Provenza, Dominic V., Catonsville
Pudleiner, Madge, Takoma Park
Pulliam, Helen W., Washington, D. C.
Pumphrey, Elizabeth E., Upper Marlboro
Purcell, Jo Y., South Boston, Va.
Purnell, Jane L., Laurel, Del.
Pyle, Helen D., Bethesda
Pyle, Shirley D., College Park
Pyle, Thomas W., Bethesda
Pyles, William G., Gaithersburg
Quinn, Edward F., Jr., Bethesda
Quintrell, John E., Jr., Seat Pleasant
Quirk, Roberta M., Chevy Chase
Rachanow, Louis, Baltimore
Ragains, Nannie E., Salisbury
Ramey, Arthur G., Cumberland
Ramsburg, Herman F., Westminster
Ramsey, Dorothy E., Reisterstown
Rankin, William D., Baltimore
Raphel, Eugene V., Cumberland
Rau, Hammond, Brunswick
Raver, Sarah I., Washington, D. C.
Readmond, Catherine N., Anacostia, D. C.
Reed, Catharine T., Riverdale
Reed, Edward D., Alexandria, Va.
Reese, Elmer L., Baltimore
Reid, James L., Catonsville
Reidy, Kathryn, Silver Spring
Remsburg, Robert K., Thurmont
Repp, Mary K., Union Bridge
Reynolds, Orr E., Washington, D. C.
Rice, Daniel G., Temple Hills
Rice, Florence E., Gaithersburg
Richards, Barbara J., Chevy Chase
Richmond, Marie A., Lonaconing
Ricketson, Harriet A., New Rochelle, N. .Y
Ricketts, Lena A., Rockville
Rigby, Elmer C., Baltimore
Riggin, Albia E., Princess Anne
Riggs, Maurice T., Rockville
Riley, Carolyn D., Salisbury
Riley, Idamae T., Brentwood
Riley, Inez L., Chevy Chase
Rimmer, Harry, University Park
Rinehart, Anna F., Washington, D. C.
Ritchie, Robert R., Lonaconing
Rittenhouse, Floyd O., Takoma Park
Rivkin, Leon, Baltimore
Roberts, Fannie E., Washington, D. C.
Roberts, Virginia D., Baltimore
Robey, Carrie E., Laurel

Robinette, Elizabeth V., Cumberland
Robinette, Ernest O., Cumberland
Robinson, Arthur E., Bladensburg
Robinson, Elizabeth J., Cambridge
Robinson, Florence M., Clearspring
Roby, Janet F., Riverdale
Roby, Maud F., Riverdale
Rochlin, Martin, Baltimore
Rodeffer, Leah C., Port Republic, Va.
Rodgers, Kelly, Washington, D. C.
Roesler, Herbert S., Bayard, Va.
Rogers, Francis M., Stockton
Rogers, Gertrude I., Kensington
Rogers, Helen S., Overlea
Rollins, Richard A., New Orleans, La.
Rosen, Martin, Fort Salonga, N. Y.
Rosenblum, Robert, Washington, D. C.
Ross, Althea H., Barton
Ross, Annie L., Pocomoke
Ross, Betsy, Takoma Park
Routson, Urith A., Uniontown
Rowell, Ann H., Hyattsville
Rubin, Max, Woodcliff, N. J.
Rudasill, Virginia D., Poolesville
Rudy, Helen M., Middletown
Ryan, Mary H., Hyattstown
Ryon, John F., Riverdale
Sachs, Frank N., Annapolis
Sachs, Harold, Washington, D. C.
Sachs, Harris H., Washington, D. C.
Sachs, Hyman, Baltimore
Sadowski, Frank E., Laurel
Santaniello, Nick J., Norwalk, Conn.
Sasscer, Cora D., Chevy Chase
Sawyer, E. Rebecca, Washington, D. C.
Schaefer, Anna F., Chevy Chase
Schaefer, Edna M., Frederick
Scheffler, Rita A., Bethesda
Schilling, John M., Baltimore
Schlossnagel, Iva D., Accident
Schmidt, Robert F., Baltimore
Schneider, (Sister) Monica A., Baltimore
Schriver, Hazel W., Hancock
Schroeder, Leonard T., Linthicum
Schuermann, Margaret C., Baltimore
Schultz, Dorothy J., Rockville
Schultz, John Logan, Baton Rouge, La.
Schwartz, John K., Catonsville
Scott, Dorothy V., Berlin
Scott, Mary J., Hyattsville
Scotton, Louise D., Goldsboro
Seabrease, Wilsie G., Salisbury
Secrest, John P., Brentwood
Sedor, Mary J., Simpson, Pa.
Sensenbaugh, Glenn H., Smithsburg
Sesso, Raymond F., Washington, D. C.
Seviour, Carolyn E., Silver Spring
Sexton, M. Jordan, Baltimore
Shaw, Charles E., Jr., Cumberland
Shaw, David, College Park
Shaw, Gail L., Chevy Chase
Shay, Donald E., Lebanon, Pa.
Shea, Katherine J., Holyoke, Mass.
Shea, Mary B., Frostburg
Shears, Kathleen, Clinton
Sheff, Joseph, Annapolis
Sheid, Lillian L., Silver Spring
Shepherd, Julia S., Riverdale
Shepperd, Anna G., Upper Falls
Shepperd, Frances M., Upper Falls
Sherwood, John H., Jr., Baltimore
Shires, Dorothy W., Cumberland
Shockley, Bryan L., Deer Park
Short, Katharine E., College Park
Showe, Lawrence M., Hagerstown
Shreeve, Margaret G., Taneytown
Shreve, Edward, Baltimore
Shuck, Joseph M., Hagerstown
Shuck, Rose C., Silver Spring
Shutak, Vladimir G., San Francisco, Calif.
Siebeneichen, Paul O., Washington, D. C.
Siegrist, Louise S., Washington, D. C.
Sieling, Frederick W., Baltimore
Silbert, Celia S., Baltimore
Silbert, Keel, Baltimore
Silverman, Florence P., Takoma Park
Silverman, Frank, Baltimore
Simmons, Elizabeth M., Waldorf
Simms, Charles F., Bel Alton
Simon, Isaac B., Washington, D. C.
Simon, Kathryn G., Washington, D. C.
Simons, George M., Cumberland
Simpson, Edgar A., Baltimore
Simpson, Vernon R., Baltimore
Sims, Olivia K., Rockville
Siskind, Florence, Baltimore
Sisler, Fred D., Washington, D. C.
Sisson, Ruth H., Hyattsville
Sivigny, Joseph A., Takoma Park
Skelton, F. Alice, Hyattsville
Skemp, Glenn S., Washington, D. C.
Skidmore, James C., Burkittsville
Skidmore, Mary A., College Park
Skill, Elizabeth P., Homestead, Fla.
Skinner, Barbara B., Silver Spring
Skinner, Calvin LeR., Cordova
Skinner, Carolyn B., New Windsor
Skirven, Emilie N., Chestertown
Sleeman, Veronica M., Frostburg
Sleeman, Ursula C., Frostburg
Slesinger, Albert D., Pikesville
Smith, Ada R., Cecilton
Smith, Alan B., Jr., Washington, D. C.
Smith, A. Grayson, Greensboro
Smith, Frances E., Ashton
Smith, Francis A., North East

Smith, Hateva V., Greensboro
Smith, Hazel J., Washington, D. C.
Smith, Helen F., Baltimore
Smith, Martha E., Goldsboro
Smith, Mary E. M., Frederick
Smith, Robert H., Woodlynne, N. J.
Smith, Robert L., Baltimore
Smith, Ruth E., Frederick
Smith, Ruth P., Silver Spring
Snively, Helen L., Hagerstown
Snook, Kathryn A., Buckeystown
Snyder, Eleanor S., Baltimore
Snyder, Ethel, Laurel
Snyder, Lillian H., Laurel
Snyder, Roger W., Hagerstown
Sokolsky, Henry, Baltimore
Somervell, Arthur C., Salisbury
Soper, Jessie G., Piscataway
Soper, Kathryn E., Clarksburg
Sothoron, Julia H., Charlotte Hall
Souder, Letty, Gaithersburg
Speake, Mary M., College Park
Spear, Edwin H., Glen Burnie
Specht, Alston W., Washington, D. C.
Speicher, John P., Hyattsville
Speicher, Mildred H., Hyattsville
Speicher, Nelle I., Accident
Spencer, Ethel D., Easton
Spicknall, Florence L., Hyattsville
Spragg, Lloydis E., Washington, D. C.
Sprague, Norman G., College Park
Stach, James A., Baltimore
Staley, Adeline E., Washington, D. C.
Stanley, Gertrude W., Damascus
Stant, Ruth M., Church Hill
Stauffer, C. Beattie, Walkersville
Steenburg, Isabella A., Aurora, Neb.
Stein, Elizabeth, Washington, D. C.
Stephens, Robert R., Washington, D. C.
Stericker, M. Christine, Swarthmore, Pa.
Sterling, Priscilla, Crisfield
Sterling, Raymond A., Washington, D. C.
Stern, Eugene I., Bronx, N. Y.
Stern, Florence L., Bronx, N. Y.
Sterner, Kathalene E., Hanover, Pa.
Stevens, John F., III, Annapolis
Stevens, Margaret E., Paris
Stevenson, Mary H., University Park
Steyer, Velma C., Kempton, W. Va.
Stifler, Margaret C., Fallston
Stine, Wilma P., Washington, D. C.
Stoddard, Carl K., Reno, Nev.
Stoker, Lottie S., Cambridge
Stone, Marguerite M., Takoma Park
Storms, (Sister) Barabara, Baltimore
Storrs, Dorothy H., Linthicum Heights
Stotler, F. Isabel, Baltimore
Stout, Frances C., Eden
Streett, John H., Bradshaw
Strobel, Martin E., Braddock Heights
Struble, John B., Washington, D. C.
Struve, Katherine G., Chevy Chase
Stull, William DeM., Madison, N. J.
Sudler, Olive W., Baltimore
Sullivan, Ross H., Pleasantville, N. J.
Sunday, Angeline M., Frederick
Sunderland, Thomas W., Seat Pleasant
Sutton, Carrie O., Washington, D. C.
Swann, Melvin H., Tilghman
Tait, Ingrid, Quebec, Canada
Tait, Ragnhild, Washington, D. C.
Talbert, Helen C., Washington, D. C.
Talbott, Edward B., Clarksville
Taliaferro, Carrie B., Orange, Va.
Tarleton, Laura B., Annapolis
Tate, John K., Middletown
Tatman, Helen M., Millington
Taylor, Eleanor S., Ridgely
Taylor, Josephine H., Hebron
Taylor, M. Marguerite T., Gambrills
Taylor, Mary M., Washington, D. C.
Taylor, Ruth M., Washington, D. C.
Taylor, Thomas, Oxford
Teal, Lois, Hyattsville
Tennant, Anne W., Barton
Terl, Armand, Baltimore
Terry, Virginia A., Baltimore
Teter, Naomi R., Cumberland
Teunis, Audrey S., Upper Marlboro
Thomas, Carl C., Adamstown
Thomas, Catherine B., Takoma Park
Thomas, Genevieve E., Washington, D. C.
Thomas, George E., Washington, D. C.
Thomas, Harvey L., Adamstown
Thomas, Margaret, Hyattsville
Thomas, Nellie G., Oldtown
Thomas, Sara M., Hyattsville
Thomas, Seldon B., Baltimore
Thompson, Susan C., Hollywood
Thompson, William W., Rock Hall
Thornton, Margaret L., Washington, D. C.
Timberlake, Turner G., Magnolia
Timke, Helen A., Washington, D. C.
Todd, Frances M., Laurel
Todd, Hilda M., Crisfield
Todd, Jennings W., Wingate
Tompkins, Margaret H., Rockville
Townsend, Lawrence R., Parkville
Towson, William O., Baltimore
Trainor, Gertrude C., Silver Spring
Trantham, Alma Y., Washington, D. C.
Trout, Maxine E., Frederick
Troxell, Joseph L., Hagerstown
Truitt, Bertha E., Sudlersville
Tucker, Margaret E., Washington, D. C.
Turner, Alice U., Washington, D. C.

Turner, Alice V., Washington, D. C.
Turner, Emily B., Aquasco
Ullman, Cynthia G., Washington, D. C.
Ulman, Bernard, Jr., Baltimore
Urquhart, Ann M., Riverdale
Valade, Adrian J., Riverdale
Valle, Joseph A., Baltimore
Valle, Michalena M., Baltimore
Valle, Philip James J., Baltimore
Van Horn, Clifton W., Silver Spring
Vorkoeper, Marcia M., Washington, D. C.
Wackwitz, Mary B., College Park
Wade, John P., Jr., Washington, D. C.
Waite, Alan K., College Park
Wakeham, Helen M., Hyattsville
Waldron, Mabel G., Washington, D. C.
Walker, Frederick B., Beltsville
Wallace, C. Elizabeth McF., Solomons Island
Walper, Perry E., Pittsburgh, Pa.
Walter, Ella B., Cambridge
Walter, J. Edward, Cambridge
Ward, James R., Gaithersburg
Ward, Stevenson A., Havre de Grace
Warehime, Vallie B., Manchester
Warfield, Allen, Baltimore
Waring, Celia, Kansas City, Mo.
Warren, Mary A., Bethesda
Warren, Warren, Rising Sun
Washburn, Leola F., Washington, D. C.
Waters, Mary E., Odenton
Watkins, Corrinne B., Mount Airy
Watkins, Donald E., Mount Airy
Watkins, Grace O., Hyattsville
Watkins, Jessie N., Mount Airy
Watkins, Myrtie E., Monrovia
Watson, Betty Jo, Forest Glen
Watson, E. Nadine, Brandywine
Wayson, Hylda M. G., Davidsonville
Webb, Clay McA., Jr., Vienna
Webb, Jonabel W., Washington, D. C.
Webster, Edward, Washington, D. C.
Wegman, Ruth R., Parkville
Wehrle, John S., Washington, D. C.
Weidum, Lee, Chesapeake City
Weintraub, Joseph, Baltimore
Weld, Ruth, Sandy Spring
Weller, Clara G. B., Washington, D. C.
Wellslager, John A., Baltimore
West, Dorothy H., Sligo Park Hills
West, Margery H., Washington, D. C.
West, Rebecca S., Washington, D. C.
Westfall, Jean E., College Heights
Westfall, Robert R., Hyattsville
Wheatley, Rosemary P., Hyattsville
Wheatley, Victoria K., Vienna
Wheedleton, Lillie A., Seaford, Del.
Wheeler, Elsie, Silver Spring
White, Dorothy E., Bedford, Va.
White, Kenneth S., Hyattsville
White, Mary G., Dickerson
White, Ruth O., Mt. Rainier
Whitesell, Harry S., Washington, D. C.
Whitman, Julian R., Wellesley Hills, Mass.
Whitney, Margaret E., Takoma Park
Whitt, Marie B., Washington, D. C.
Widenmyer, Violet E., Mt. Rainier
Wilhide, Amy R., Pawnee, Okla.
Wilkinson, Eileen D., Gaithersburg
Wilkinson, Helen V., Silver Spring
Willard, Helen L., Poolesville
Willhide, Ruth E., Thurmont
Williams, Arthur E., Jr., Salisbury
Williams, Edith M., Washington, D. C.
Williams, Frances D., Cumberland
Williams, Helen E., Randallstown
Williams, Helen V., Washington, D. C.
Williams, Laurence L., Baltimore
Williams, Loris E., Takoma Park, D. C.
Williams, Margaret G., Baltimore
Williams, Mildred F., Hurlock
Williams, Ralph I., College Park
Williamson, Robert G., Washington, D. C.
Williford, Mattie M., Washington, D. C.
Willingham, Patricia, Hyattsville
Willis, Charles W., Elkridge
Willoughby, Elizabeth M., Preston
Wilson, Alice P., Highland
Wilson, Elinor G., Denton
Wilson, Emma, Silver Spring
Wilson, G. Mahala, Millersville
Wilson, Henry D., Takoma Park
Wilson, Hilda B., Poolesville
Wingate, Francis M., Wingate
Wingate, Phillip J., Wingate
Wink, Treva B., Manchester
Wintermoyer, John P., Hagerstown
Wise, Elizabeth F., Middletown
Wise, Miriam W., Walkersville
Wisner, Gaylord H., Washington, D. C.
Wisner, Jackson W., Rockville
Wolf, Elwood, Anacostia, D. C.
Wolfe, Kathleen E., Frostburg
Wonn, Virginia G., Hampstead
Wood, Helen L., Washington, D. C.
Wood, Rebecca I., Rock Hall
Woolston, William W., Jr., Catonsville
Worthington, Elizabeth J., San Diego, Calif.
Wright, Irma H., Arlington, Va.
Wright, Robert K., Knoxville
Wrighter, Emily T., Lanham
Wyand, William J., Sharpsburg
Wyatt, Evelyn M., Washington, D. C.
Wyvell, Janet E., Washington, D. C.
Yaffe, Paul, Baltimore

Yarnall, William D., Washington, D. C.
Yeager, Mildred F., Baltimore
Yoder, Elizabeth M., Long Green
Yohn, Lionel, Westminster
Yonkers, Bernard O., Emmitsburg
Yonkers, Saranna, Emmitsburg
Young, A. Irene, Silver Spring
Young, Dorothy O., Bethesda
Young, Edmond G., Baltimore
Young, Gladys H., Silver Spring
Young, Karl H., Baltimore
Young, Raymond M., Moosup, Conn.
Zajic, John E., Clinton
Zalesak, Francis J., College Park
Zentmyer, Catherine A., Hagerstown
Zepp, Edna M., Brookeville
Ziegler, Mary T., Washington, D. C.
Ziegler, Paul R., Baltimore
Zimmer, David J., Takoma Park
Zimmerman, Marian A., Washington, D. C.
Zimmerman, Mary E., Catonsville
Zimmerman, Sterling E., Westminster
Zimpel, Rudolph L., McLean, Va.
Zitin, Bernard, Philadelphia, Pa.

SUMMARY OF STUDENT ENROLLMENT FOR THE ACADEMIC YEAR 1939-1940

Resident Collegiate Courses—Academic Year:

	Park College	Baltimore	Total
College of Agriculture	400		400
College of Arts and Sciences	1,029		1,029
College of Commerce	384		384
School of Dentistry		310	310
College of Education	487	295	782
College of Engineering	555		555
Graduate School	393	71	464
College of Home Economics	276		276
School of Law		233	233
School of Medicine		376	376
School of Nursing		121	121
School of Pharmacy		133	133
Total	3,524	1,539	5,063
Summer School, 1939	1,401	112	1,513
Grand Total	4,925	1,651	6,576
Duplications	—468	—91	—668
Total Less Duplications	4,457	1,560	5,908

Vocational Teacher Training, Washington, D. C.	54
Vocational Teacher Training, Subcollegiate	76
Mining Courses, Western Maryland	135
Short Courses and Conferences as shown on next page	2,704
Grand Total, All Courses, Baltimore and College Park, less duplications	8,877

Short Courses and Conferences:

Greenkeepers' School	49
Highway Engineering Short Course	121
Nurserymen's Short Course	107
Florists' Short Course	171
Garden School	257
Canning Crops Conference	156
Rural Women	633
Educational Advisers, CCC	108
Boys' and Girls' Club Week	630
Traffic Officers	21
Tree Wardens	50
Volunteer Firemen	186
Milk Testing	5
Poultry Products Marketing School	85
Poultry Breeding and Improvement School	125
Total Short Courses	2,704

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Any further information desired concerning the University of Maryland will be furnished upon application to

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College Park, Maryland